THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

VOL. CLXI JULY 18 1941 NO. 5137

SCIENCE AND ART

THE recently published First Report of the Education Committee of the Architectural Science Group of the R.I.B.A. Research Board* would attract a great deal of attention in time of peace, but in these preoccupied days there is a possibility that it will be laid aside somewhat lightly by the average architect, although it is really now that all such investigations should receive a maximum of attention.

Architecture is an art which can never be divorced from science, for it is one which is concerned with solid reality as no other art is in quite the same positive way. There is a lot to be said for the statement that the unsatisfactory condition in which we find architecture to-day is due to too long a period of separation between art and science. The master masons of the Middle Ages, the architects of the Renaissance, and even the Early Victorian architects, were men who knew the science of building as well as its art, and, in fact, they did not attempt to separate the two sides of their calling, but treated them as essential parts of one process.

We have to be quite frank with ourselves and ask whether the average architect of to-day, whether mature and eminent or recently trained and enthusiastic, could calculate for himself the necessary factors of stability for one of his greater modern buildings. There is no doubt about the honest answer to this question, although that answer must be followed fairly with another question: "Is it a matter of grave concern that the modern architect is not fully equipped with the scientific knowledge necessary to be self-sufficient in the complicated and involved process which is modern building on the greater scale?" There is an alternative question which might be put: "Is it *possible* for one brain to contain *all* the technical knowledge necessary for this process?"

A ready answer to this latter question might be that time has already proved the possibility, and the classic case of Wren would be quoted in support of such a contention. We submit that the point cannot be so lightly settled. There are so many more factors to be considered by the modern builder than those which Wren had to grapple with, that it is almost certain that even that superman, were he alive to-day, would find life too short for the study implied by such an assumption. Nor must we forget the reinforcement which he had at his elbow in proved and single-minded craftsmen, whose natural processes had not been spoiled by the continual regimentation of modern architectural method.

We think that the average intelligent person who devotes his thought to this matter will come to one conclusion, which is that it is neither necessary nor possible for the architect to become accomplished in all the various structural sciences. As an artist, his building instincts will carry him far along the road to truth, which science explores minutely and slowly, and nothing should be done to cramp that free instinct which is his special endowment.

That is the first point at which this Report appears to cut across practical politics. It is certainly necessary for the architect to know the first principles of the things he has to administer, but if he is to enter too minutely into details; even in his training, there is a risk that the main essentials of his calling may not receive the attention they require. There is also a risk that if we lose our sense of proportion in these things we may attract the wrong type of student. There are probably more good brains that thrive in the pursuit of exact knowledge than there are that find their interest in the more intangible field of the arts. Often those most inspired in the latter field find the pursuit of exact knowledge, which is science, a most elusive thing. If we killed the enthusiasm of such men as these we should be doing an ill service to architecture.

But to deal with a more immediate question, there can be no doubt that this is a time during which we shall have to contrive to train and equip as many young architects as possible in as short a time as possible. It is unfortunate that when we are in the greatest need for the best we can spare the least time for producing it. But it is a situation which is forced upon us by the pressing events of the times, and it would therefore seem that if we are to recast our educational system to meet the emergency, it must be in the direction of simplifying the process rather than of adding to its complications.

We do not intend to suggest that we can afford to ignore science in any scheme of architectural education. On the contrary, there are many scientific and common-sense facts which are the necessary prelude to any architectural effort. The whole of architectural design must be pervaded with the structural idea, for that is the only possible medium for the art. It is a side of training which cannot be neglected. But let us not ignore the fact that good modern building arises best out of a wide teamwork of experts, and that however completely the modern architect becomes the captain of that team, he should never attempt to take the place of any of its essential members.

If we can admit so much, then surely the aim should be to devise a system which will train the architect for his coming captaincy, rather than attempt the impossible task of rendering him fit to take the place of each and any of the team. The Report does, of course, recognise these facts to some extent, but there seems to be in it a failure to reduce this problem to its practical application.

* R.I.B.A. Journal, June, 1941.

NOTES AND NEWS

Civilian Hutment Camps.

Work has begun on some of the standard hutment camps which the Ministry of Works is to erect on sites round the fringes of certain "target" towns as temporary rest centres for bombed-out civilians. They will be dispersed in small groups on several sites outside a strictly limited number of towns apart from London which have been specified by the Ministry of Health as having special re-housing or billeting problems. As labour and material can be mobilised other cities liable to heavy attack will be brought within the scope of the scheme. Each hut will provide accommodation for 32 single persons or be divided into compartments for married or family quarters. Essential furniture, equipment, and sleeping bunks will be provided. There will be a communal dining-room on each site and cooking will be done in a central cookhouse. One of the earliest places to be furnished with these hutments is Hull.

Leverhulme Trust Architectural Award.

Mr. C. Max Lock, A.R.I.B.A., Head of the Hull School of Architecture, has been awarded a research fellowship by the Leverhulme Trust. With the assistance of Mr. B. Le Mare, A.R.I.B.A., he will prepare a planning survey of existing social conditions in housing, social services, transport and location of industry in Hull and its region, and proposals for its post-war planning and reconstruction.

The R.I.B.A. Library.

The R.I.B.A. Library will be closed to readers and inquirers during one week, Monday, August 18, to Saturday, August 23 inclusive, to enable various essential maintenance duties to be fulfilled which pressure of day-to-day business has caused to be postponed. Books borrowed from the library can be returned in this period but no new loans will be made. Inquiries originating in Government Departments will be dealt with as usual.

An A.A. Exhibition.

Peter Saxl, who was born in Vienna in 1915, was a student at the A.A. in 1933-1934; he died in 1941. He was awarded a travelling scholarship which enabled him to study housing conditions (a subject in which he was specialising) on the Continent as well as in this country. Some interesting results of his studies and views on this question are to be seen at the Architectural Association. On the walls also are coloured drawings of interiors and figure subjects, including a self-portrait. These show the influence of a certain modern school which favours coarse and crude execution. Indefiniteness is simpler and easier than definiteness, which is only acquired by a period of study. Had the young artist lived he would probably have outgrown his borrowed mannerisms and developed the natural ability which he undoubtedly possessed.

"Housing in Scotland": A Broadcast.

The B.B.C. announces that at 3.30 p.m. on July 21, Alan Reiach will talk about "Housing in Scotland." Much of our domestic architecture is dull, states the B.B.C., and drab, and Mr. Reiach will give his ideas, as an architect, on rebuilding our Scottish homes and making them worthy of our land and our people.

Damaged Churches, St. Albans Diocese.

The St. Albans Diocesan Advisory Committee has approved the eight architects appointed by the Minister of Works to examine churches damaged by enemy action and advise the relevant local authority as to salvage and repair. They are Professor A. E. Richardson, A.R.A. (Ampthill), Messrs. G. P. Allen, W. B. Stonebridge, and H. A. Harris (Bedford), Messrs. William Weir (Letchworth), H. G. Cherry (Welwyn), E. J. T. Lutyens (Hertford), and Mr. F. J. Lander (St. Albans).

New Guildhall Roof.

Presiding at the Mansion House recently over a Court of Common Council, the Lord Mayor alluded to the promptness with which the temporary roof of Guildhall had been placed in position. He said that by almost superhuman effort the Corporation staff and the contractors had finished the work in time to enable the citizens to meet in Common Hall for the election of Sheriffs on Midsummer Day. After the Great Fire of 1666 the Hall was not used for three years. The quickness with which the work had been done was a sign to the world that the City of London was carrying on.

City Firms' Register.

The Library Committee of the City Corporation ask us to state that City firms whose offices have been destroyed by enemy action are invited to record their new addresses at the Guildhall Library, Basinghall-street, E.C.2, where a register is in course of preparation and will be available for consultation.

Company Appointments.

Mr. G. B. Brader, M.Inst.C.E., M.I.Struct.E., for 17 years chief engineer of Messrs. Trollope and Colls, Ltd., has been elected to the board of the Company. Mr. D. Wark, Assoc.M.Inst.C.E., and Mr. F. T. West, who have been with the firm for many years as chief assistant engineer and contracts manager respectively, have been appointed technical directors of the Company.

Professional Announcement.

From Monday, July 14, the address of Messrs. Davis & Belfield, chartered quantity surveyors, has been No. 4, Harley-road, N.W.3 ('phone: Primrose 1560).

IN 1916.

Extract from *The Builder*, July 14.

"If the first principles of architecture were better understood by the great public we should see less mediocre buildings, and if architects should make themselves more aggressively *directors of public architectural thought and taste* and less simply executors of orders given by clients, our eyes would be greeted by designs more worthy of respect and admiration."—From a letter on "The Commercial Value of Design," by Mr. H. Gordon Selfridge.

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From "History Under Fire."

ST. LAWRENCE JEWRY AS BURNT OUT BY NAZI FIRE BOMBS (see page 53).

CORRESPONDENCE

[While we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

War-Time Utilisation of the Industry.

To the Editor of *The Builder*.

Sir,—I have just read the editorial article in your last issue on the subject of Building Labour. The issues raised are so important that if the building industry is to exert its maximum strength in the national war effort the problem should be examined from a wider point of view.

The building industry depends not only on brawn, but on brains, yet the industry's intellectual capacity has not been exploited to any significant extent. If, however, these latent powers were fully organised and used, the building industry would quickly cease to be a limiting factor in the national war effort.

The existence of dismal lapses in endeavour can be demonstrated by reference to three specific instances of materials, methods and personnel. These lapses exist because resources in terms of brain-power have been ignored.

One quite well-known manufacturing section of the building industry has now had its entire productive capacity strained beyond its resources since last September. At the present time, all manufacturers of this material (representing the country's capacity) are some six to eight months behind in production for official requirements alone. There is, in addition, a legitimate unfilled private and local government demand for the repair of air-raid damage.

There exists another material, that I shall call *x*, known under a variety of trade names. It is made by a small number of commercially unrelated concerns whose sales pressure would be sufficient to bring it considerable attention. These companies provide a large productive capacity that is virtually unused. Not only could *x* be substituted for most purposes for the first material, but it is a standard article, well known to the building industry in many countries for many years, and used even in peace time to replace more traditional materials because of advantages of speed in construction. "Love in idleness," represented by those who should be busy making and distributing this material, can, however, console itself by the diverting spectacle of liaison committees allocating the materials that remain in short supply.

Some of those whose minds have led them down experimental paths have wandered far from familiar well-trodden ground. Before the war this caused them to be looked at somewhat askance, but it might be expected that great needs would involve bold methods for their solution.

Allied to the use of indigenous materials, some ingenious constructional methods have been evolved; one that shall be nameless makes it possible to erect buildings in a few hours with unskilled labour. Two Cabinet Ministers have praised its utility and economy in public. It might be expected, therefore, that examples of these structures would be evident wherever the glance might rest, but no! Private building for wartime needs has been attracted by these qualities, but official scorn has achieved a magnificent phase and remains quite unstirred.

I understand there is an Alternative Materials Committee. Perhaps if they could widen their scope to include methods as well they might commit something.

When the use of specialist personnel is considered, the jest would be greater were it not so grim. We hear a lot about the absorption of women into the war effort, and, indeed, exhortations for women to do war work daily increase in stridency. I do not know how many women architects are employed in their professional capacity on war work, but I know some whose brilliant work has won professional recognition for them who are not employed. Why indeed should they be, when their male counterparts (over military age) whose practices the war ruined are still without jobs? One friend, recently thrilled to be posted to an official job, finds that only office-boy's work is expected from him, and indeed this seems just, for it is commensurate with the salary paid. Specialist scientific research and production experience in the industry is ignored and squandered as something useless instead of being utilised as a basic raw material.

When children are taught chemistry at school they learn that the velocity of a reaction depends on the amount of reacting substances present. If those charged with the duty of ensuring that the building industry delivers the goods could absorb and apply this principle to their work, the rate of building progress could be accelerated enormously.

The lapses are so serious that one wonders whether they arise from ignorance, inanition, or are they wilful?

Farley Green, Near Guildford. E. H. Ellis.

Books on Architecture for the Forces.

To the Editor of *The Builder*.

Sir,—The R.I.B.A. Library has received a request for books on architecture from the Officer Commanding a unit of the Pioneer Corps, stationed in a country district in England. There are sufficient men in the unit to form an architectural study group, but they have no books and seem unable to get them through the Army Educational Corps.

Architects who have elementary books, either general or technical, which they can spare, are asked to write to the R.I.B.A. saying what they have, so that this particular request can be met without the waste of time and postage taken in sending the books themselves until it is known for certain that they are wanted. A copy of Fletcher's History will definitely be welcome.

Edward Carter, Librarian, R.I.B.A.
66, Portland-place, W.1.

Mr. Ernest J. Brown and the Institute of Builders.

To the Editor of *The Builder*.

Sir,—At the meeting of the Council of the Institute of Builders on June 25 last, Mr. Ernest J. Brown, President of the Institute nearly 30 years ago and well known for many years as the Director of the London Master Builders' Association, was unanimously elected an Honorary Fellow of the Institute.

Mr. Brown and his wife are now in their fourth home since the outbreak of war, having been bombed out of three but not out of the vulnerable locality where they have so long resided.

P. J. Spencer, Secretary,
The Institute of Builders.
48, Bedford-square, W.C.1.

London Statuary: Post-war Opportunities.

To the Editor of *The Builder*.

Sir,—A newspaper illustration shows a group of London's evacuated statues standing in the grounds of a ruined castle somewhere in the country. One of them is Rodin's "Burghers of Calais," lately in Palace Yard.

Some years ago an eminent sculptor, answering my question, "What is wrong with London's much-criticised statues?" said, "Not a great deal. It is mostly the way in which they are sited."

One of his examples was this very group of Rodin's. The original, which is (or was) at Calais, was on eye-level, and one could see the sculptor's marvellous detail—the varying expressions on the figures' faces, and so on. The replica in England was skied on an equestrian pedestal, and the detail was virtually invisible. (Ironically enough, now the group is on the ground there is nobody to admire it except the local gardeners.)

Another example quoted was a statuette by Verocchio, which was carved specially to go in a niche in a Florentine courtyard. A replica stands in the centre of an open grass space in Hyde Park—a fish out of water. There are many other examples of such errors in taste and judgment.

It occurs to me that this wholesale evacuation of London's statues will in due course afford an opportunity for a reconsideration of their siting. I have reason to believe that my sculptor-friend's criticism was admitted by authority to be just, but that the question of expense prevented any rearrangement of existing statues. After the war, however, it would cost no more to put them back right than to put them back, as before, wrong. When the time comes it might be worth while to obtain expert opinions on the subject, and, if any improvement results, the war will have done London one minor service to set off against many major disservices.

Incidentally, though Eros has left Piccadilly Circus, his replica still stands unperturbed in Sefton Park, Liverpool.

G. B. J. Athol, Secretary,
The Incorporated Association
of Architects and Surveyors.
75, Eaton-place, Westminster.

COMING EVENTS

Tuesday, July 22.—Housing Centre Luncheon: Mr. H. Symon, Ministry of Health, on "Repairing War Damage to Houses." 1 p.m.

Thursday, July 24.—The Housing Centre and Town Planning Institute. Meeting in connection with "Garden Cities" Exhibition, 13, Suffolk-street, S.W.1. 1 p.m.

Friday, July 25. — Architectural Association. Annual Prize Day and Exhibition of Students' Work, to be opened by Mr. W. H. Ansell, President of the R.I.B.A. 3.30 p.m. (The Exhibition will remain open until August 15.)

Tate Gallery Trustees: New Chairman.

Mr. Jasper Ridley has been appointed Chairman of the Trustees of the Tate Gallery on the retirement from the deputy chairmanship of Sir Edward Marsh. Mr. Ridley is already a trustee of the National Gallery.

Packwood House for the Nation.

The National Trust have taken over Packwood House, Warwickshire, together with securities to the value of more than £30,000. This gift is in memory of Alfred James Ash and Emily Hannah Ash, parents of Mr. Graham Baron Ash. Packwood House is a half-timbered house dating from the reign of Henry VIII.

SYRIAN CAPITAL

RECOLLECTIONS OF DAMASCUS

By MARTIN S. BRIGGS, F.R.I.B.A.

MY own visit to Damascus, in the last days of 1918, was unorthodox and, from the point of sightseeing in comfort, about as unfavourable as it could be. The city had fallen to Allenby's army only twelve weeks before, and the retreating Turks had blown up railway-bridges on the line leading from Palestine to Syria. Hence my request for "Christmas leave" to visit Damascus was received at first with ridicule by G.H.Q. Cairo; but a convenient friendship with one of the "brass-hats" produced a blank railway-warrant which I was allowed to use at my own risk. The journey certainly proved arduous, but was well worth it. Thus, instead of seeing Damascus as a white city gleaming amid brilliant green foliage, as one of our newspapers has just described it, I saw it in dark mid-winter, the hill-tops shrouded in mist, snow-clad Hermon invisible, and the River Barada (the "Abana" of the Bible) rushing rapidly between its rigid concrete banks. A standard history of the last war says that "this oldest of cities produced a squalid impression on the British troops." To me the most squalid thing about it was the ugly arched roof of corrugated iron over the principal bazaar, but the untidy litter of war had not been entirely cleared away. Fortunately, there had been no sustained bombardment to destroy such architectural monuments as had survived its long and tempestuous history.

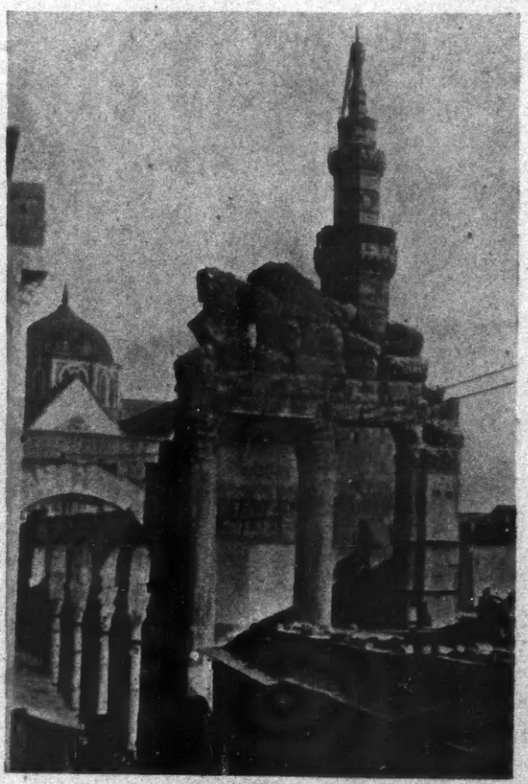
Damascus, as all readers of this journal doubtless know, has been the capital of the French mandated territory of Syria since 1920; it may be added that it has a population of nearly a quarter of a million and is a busy as well as a historical city. It will be remembered that "damask" and "Damascened blades" both derive their names from local crafts. As the metropolis of a mainly desert land, its chief attraction to Syrians has always been its green surroundings, irrigated by an elaborate system of canals from the Barada; and it may well have inspired the Muslim idea of Paradise, where verdure and running water were supposed to be plentiful. Under French rule, it suffered during a serious revolt in 1920, when the French forces bombarded the city and destroyed some buildings; this unrest continued until 1927. Throughout its long history it has been the scene of much fighting, but even to-day it still contains a vast number of historical buildings and a large area of quaint streets and picturesque bazaars and "khans."

The chief monument of the city is the famous Great Mosque or Umayyad Mosque, one of the most important surviving examples of early Islamic architecture. (It is briefly described on pp. 39-44 of my book, *Muhammadan*

DOORHEAD FROM THE KHAN OF ASAD PASHA.

M.S.B. del.

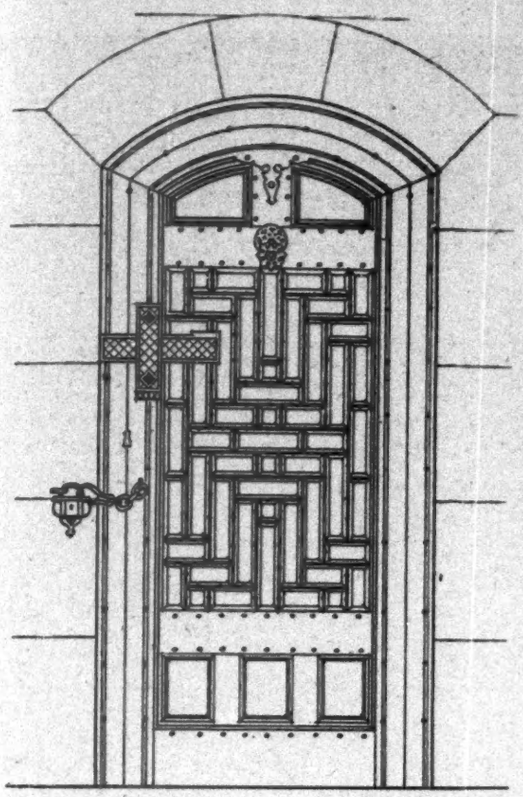
THE GREAT MOSQUE. NORTH MINARET.



[*Photo: M.S.B.*

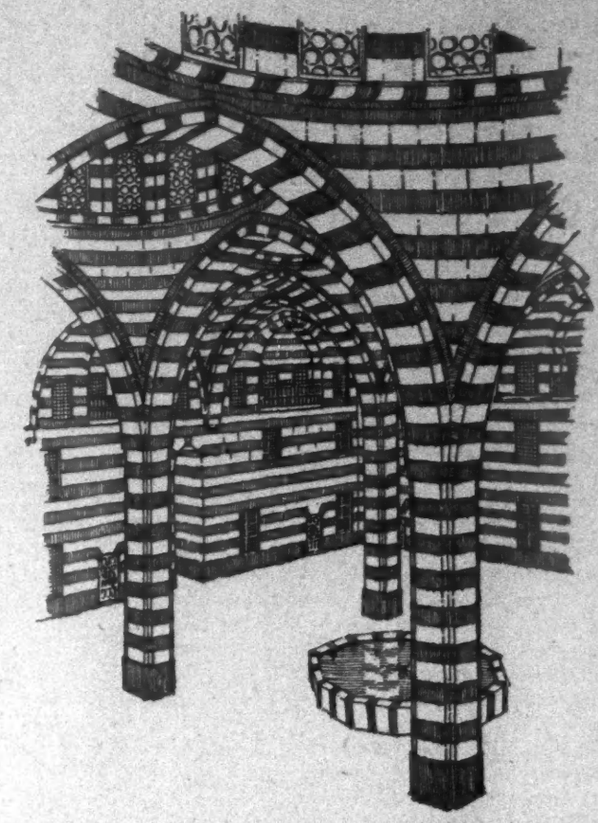
RUINS OF ROMAN GATEWAY.

(Dome and Minaret of Great Mosque in background.)



M.S.B. mens. et del.

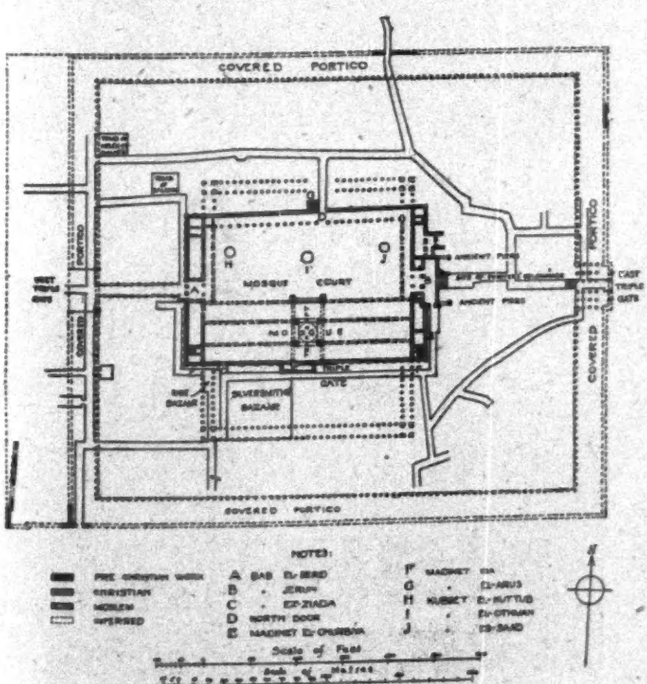
DOOR IN THE TAKIYYAH.



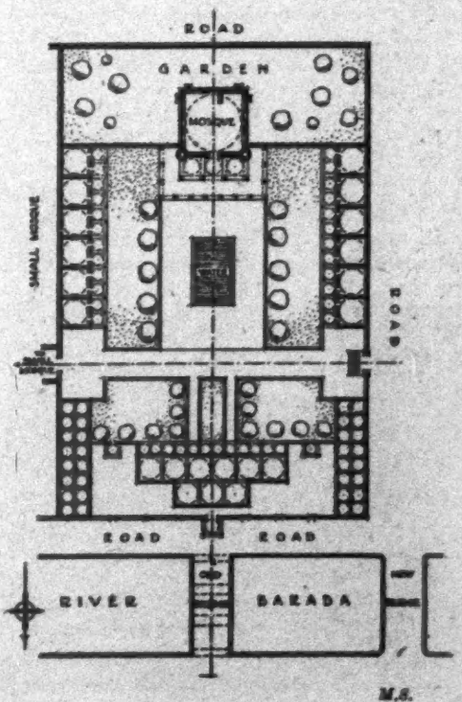
M.S.B. del.

KHAN OF ASAD PASHA. INTERIOR.

Architecture in Egypt and Palestine; much more adequately on pp. 100-146 and 229-252 in Vol. I. of Captain K. A. C. Creswell's great work, *Early Muslim Architecture*, with splendid illustrations.) There was originally a Greek temple on the site, followed by a magnificent Roman building about 1,300 ft. by 1,000 ft., part of which was converted into a Christian church in the fourth century. Portions of the Roman colonnades still remain (see photograph and plan), recalling Diocletian's work at Spalato. Captain Creswell has shown conclusively that the huge mosque we now see is not, as was previously believed, mainly an adaptation of the Christian church, but that it is, except for part of the enclosing walls, the work of the caliph Al-Walid and was begun by him in A.D. 707. Portions are much later, *e.g.*, the northern or "Bride's Minaret," the *Madinat al-Arus* (illustrated in my sketch reproduced here), which is of the late twelfth century. The mosque itself is important not only as one of the chief surviving examples of its period, but also as a prototype which inspired many other notable mosques, including the Great Mosque of Aleppo and—possibly—that at Cordova. It is said that craftsmen were



PLAN OF THE GREAT MOSQUE, &c.
(M.S.B. del. after Spiers and Dickie.)



M.S.

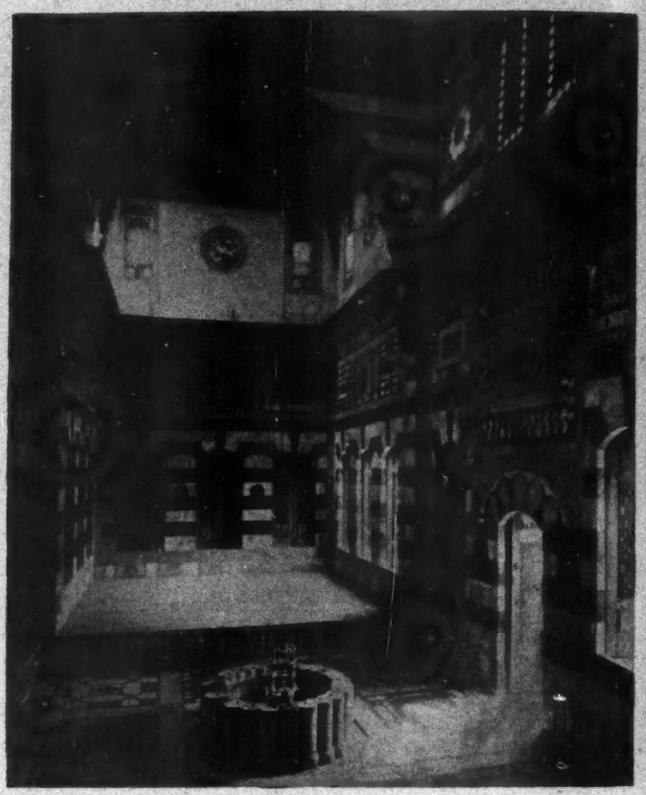
THE TAKIYYAH.
Sketch-Plan of Layout.

brought here from Byzantium, Persia, India, Egypt and Morocco, to execute its immensely costly decorations, which included a fine series of polychrome mosaics, still surviving in part. But the latest opinion considers that Al-Walid relied chiefly upon local Syro-Christian craftsmen whom he found ready to hand. Columns, capitals and other fragments of ancient Roman buildings were freely re-used in the mosque, as was common practice in early Muslim architecture. A photograph reproduced here shows a part of the arcaded courtyard, with the mosque on the right; and another minaret (the *Madinat Isa*, or "Minaret of Jesus," rebuilt in the thirteenth century) is seen in the background. The queer little structure (one of three) in the quadrangle, seems to be comparatively modern. My illustrations give no view of the noble three-aisled interior of the mosque, 430 ft. by 125 ft., with tall columns and rich mosaics. The lofty central dome is carried on four enormous piers. The east and west gateways of the earlier Roman *temenos* should be noted by all architectural visitors.

Among mediæval Islamic monuments of later date may be mentioned the graceful Tomb of Saladin (d. 1193), containing a beautiful sarcophagus and some fine tiling. It lies north-west of the Great Mosque (see plan). The body of the great Sultan Saladin, renowned for chivalry as well as courage at a time when chivalry was not common among men of his race, was reverently buried by his son in the present *qubbah* or domed tomb-chamber. An ancient legend maintains that prayers offered here are always answered.

Near Saladin's Tomb stands the mausoleum and *madrasah* (collegiate mosque) of Sultan Bibars (d. 1277 or 1278), interesting examples of the best period of Islamic architecture, containing delicate ornament and interesting mosaics, also beautiful old manuscripts which are usually shown to visitors by request. To the same period belong parts of the Citadel with its massive walls, numerous projecting towers, and deep enclosing moat. It has withstood many sieges, and its present condition of ruin internally appears to date only from the beginning of the nineteenth century, when the "Janissaries" quartered there were disbanded. Adjoining it is the humorously-named "Louse-Market," where, as may be inferred, cast-off clothing is bought and sold; and not far away is the mausoleum of the sultan Nur ad-Din (d. 1174).

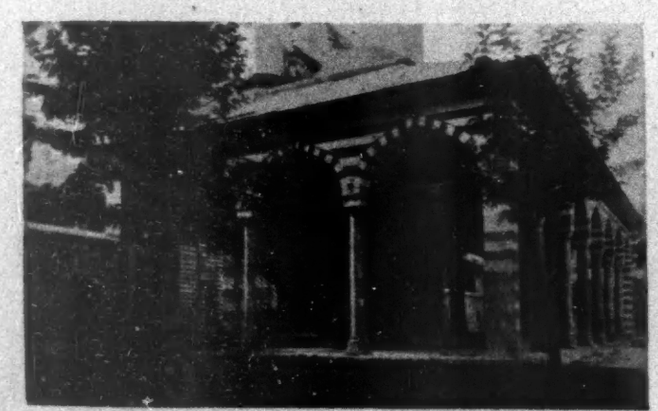
It is recorded that Damascus with its suburbs once contained 572 mosques, and the number surviving is still very considerable. There were also numerous religious or quasi-religious foundations, including schools, hospitals, and monasteries or hospices. Among the most notable is the so-called Takiyyah, built in 1516, as a convent for an order of dervishes, by the Sultan Salim immediately after he had conquered the city. This is a landmark in the history of Muslim architecture; for, after Salim had conquered Egypt and Syria in 1516-7, no more buildings were erected in the graceful style evolved in Cairo during the Middle Ages, and thereafter all mosques followed the clumsier Turkish style. Minarets assumed a pencil shape, and domes became squat.



HOUSE OF ABDALLAH PASHA.

[*Photo: K. A. C. Creswell*

COURTYARD OF THE GREAT MOSQUE.



[*Photo: K. A. C. Creswell*

THE TAKIYYAH. DETAIL OF LOGGIA.

[*Photo: K. A. C. Creswell*

THE TAKIYYAH (Dervish convent.)

THE TOMB OF SALADIN.

The delicate incised geometrical ornament of the Cairene mosques fell into disuse, but beautiful glazed tiling, mostly in shades of blue and green, took its place. One usually thinks of dervishes as a curious sect addicted to frenzied dances for the benefit of tourists, but when first established they were mystical communities to which young soldiers were attached for training, so that their headquarters in Damascus had more than a religious importance. The photographs reproduced here give some idea of the external appearance of the mosque, and my small plan shows the introduction of a new feature into mosque design, viz., a symmetrical layout almost reminiscent of a Florentine villa in its ordered lines.

Damascus also contains some fine old patrician houses dating from the sixteenth to the eighteenth centuries. They are luxuriously furnished, thus displaying a great advance since the early days of the city, when a caliph who proudly showed his new palace to the Byzantine envoy received this diplomatic comment: "The upper part will do for birds and the lower for rats." Generally the rooms are grouped around a large courtyard, containing orange-trees and a rectangular water-tank supplied from the River Barada. Unlike the modernist "sun-parlours" in our comparatively sunless country, the open-air sitting-rooms in Damascus, as in Cairo, are arranged to face north, in order to avoid the intolerable glare of the Eastern sun. There is usually one magnificent reception-hall (*durqa'ah*) with arched recesses (*liwanat*), all richly decorated with applied ornament in gesso, coloured and gilt, on the beams. The house of Abdallah Pasha, otherwise known as the "Old French Consulate," is the finest in the city, and its reception-hall is illustrated here. The photograph shows the marble mosaic covering the walls, the delicate door-panelling, and the "stalactite" cornice.

Generally speaking, the Turkish style was more sophisticated and cosmopolitan than Islamic work of the preceding centuries. But the latter style is recalled in the wonderful Khan of Asad Pasha, shown here in my general sketch of the interior, my measured detail of a typical door, and a photograph of a beautiful "stalactited" door-head, which closely resembles work of the Middle Ages in Cairo. Its date is unknown to me, but can hardly be much later than the Turkish conquest. A *khan* or "caravanserai" is a familiar feature all over Egypt and Syria, and normally consists of a building (often several storeys high) enclosing an open court. Upstairs are rooms for merchants and travellers, with balconies facing the court (as at the George Inn, Southwark); beneath them are vaulted stables, and towards the street or "bazaar" are shops. Usually there is an imposing entrance porch towards the street with a stalactited niche above, as illustrated. The Khan of Asad Pasha, with its nine domes, also contains a central fountain-basin.

All round this Khan lie the extensive bazaars, one for each trade, that form the chief attraction of Damascus for a Western visitor. One of them, the "Long Bazaar," is supposed to follow the line of the "Street called Straight" (Acts ix, 11), which is altogether over a mile in length. Here amidst a mixture of queer scents, smells and sounds, the soldier-tourist will be persuaded to buy "souvenirs" in the shape of carpets, leather slippers, inlaid woodwork, silk shawls, and brassware; and will feel that he is really seeing the Mysterious East at last.

According to a Reuter's message published in *The Times* on June 28, historical buildings were damaged in a severe enemy air-raid on Damascus on June 25. One bomb fell within a few yards of the Great Mosque and the Tomb of Saladin. "The windows of the mosque were blown out and the walls scarred by bomb splinters. A 1,000 lb. bomb caused immense damage in the crowded business centre of Sidi Amud, where it made a deep crater in the roadway and wrecked houses and shops over a wide area. Damascus was not blacked out, and the nearest military objective, the Mezze airport, is 12 miles away."

BOOK REVIEWS

BOMBED BRITAIN.

History Under Fire. Photographs by CECIL BEATON of London Air Raid Damage, with commentary by JAMES POPE-HENNESSY. (London: Batsford.) Price 8s. 6d. net.

Britain Under Fire. With a commentary by J. B. PRIESTLEY. (London: *Country Life*, Ltd.) Price 6s. net.

These two books represent the first serious attempt to show by photographs a comprehensive record of Nazi infamy in the form of the destruction of historic buildings in London and throughout Britain.

Messrs. Beaton and Pope-Hennessy's volume deals only with London and must raise in the mind of all who read it the twin emotions of grief at the damage, for the greater part irreparable, which the Nazi creed has done to our cherished monuments, and of strengthened resolve never to rest until such black-hearted villainy becomes impossible of performance. Interest naturally centres around the photographs. These are well chosen and are divided evenly between general views and details. The latter are technically superior to the longer-range photographs, some of which suffer from that "receding perpendicularity" inherent in the use of hand-cameras. One of Mr. Beaton's photographs of St. Lawrence Jewry is on page 48. Mr. Pope-Hennessy's text is an interesting complement to the pictures and strikes a nice balance between past and present.

"Britain Under Fire" is a purely pictorial record, but more catholic in range, including the whole of Britain. Besides photographs of damaged buildings are pictures of war-time activity, and as such the volume has a popular appeal which a foreword in Mr. Priestley's characteristic style will only reinforce. To Londoners, who are not so well acquainted with damage done in the great cities of the provinces, this volume should have a special appeal.

The Local Government Annual and Official Directory, 1941. (The *Local Government Journal*, Ltd., 1, Norwich-street, London, E.C.4.) Price 6s. net.

This, the fiftieth issue of a very useful publication, contains all its regular features, which have been brought up to date. These, to give some idea of its scope, include recent Local Government legislation, particulars of personnel and revised information concerning the Ministry of Health, the Board of Education, and other Government Departments, the London County Council, the Metropolitan and Provincial Borough Councils, the County, Urban and Rural District Councils, and Public Assistance Committees throughout the country. The book well supports its claim of being a tabulation of the whole range of official life in England and Wales.

These books may be obtained through the Publisher *The Builder*, 4, Catherine-street, W.C.2.

THE MALL FRONT.

U.S.A. NATIONAL GALLERY OF ART, WASHINGTON.

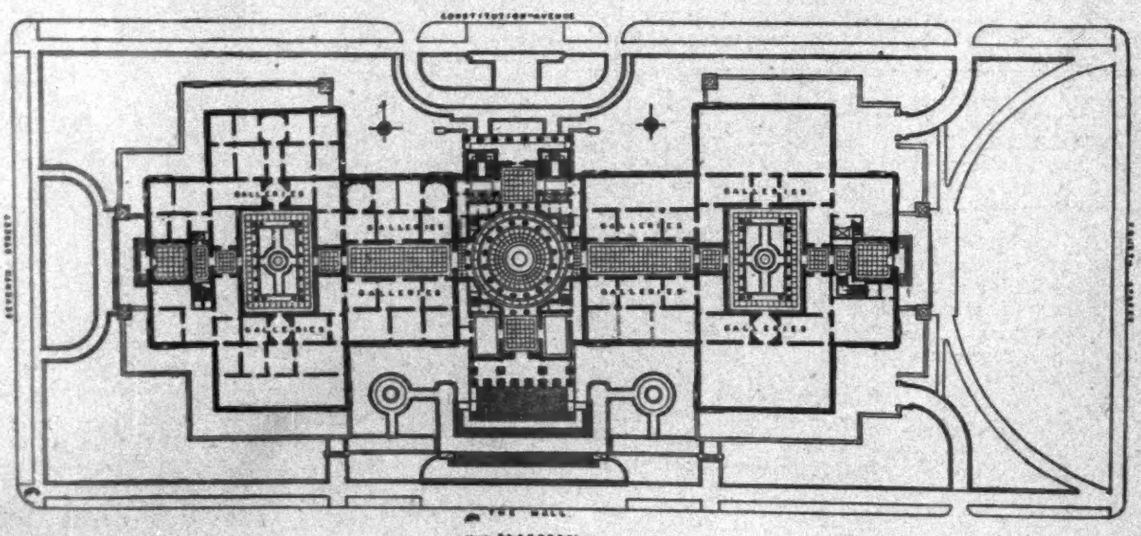
THE LATE JOHN RUSSELL POPE, ARCHITECT.

MESSRS. OTTO R. EGGERS & DANIEL P. HIGGINS, ASSOCIATES.

THE U.S.A. NATIONAL GALLERY OF ART, WASHINGTON, D.C., which was formally accepted for the American nation by President Roosevelt on March 17 last, represents a gift from the late Mr. A. W. Mellon of over £10,000,000, of which the building alone has cost £3,000,000.

DESIGN: The Gallery has been designed with the aim of achieving harmony with neighbouring buildings, and making it a worthy element in L'Enfant conception and the plan of 1901 for the City of Washington. In the inception of the design and in the later execution of details, the architects have felt it proper to keep constantly in mind the belief of both Washington and Jefferson that the style of architecture for the capital City should not depart, under any temporary pressure of vacillating ideas, from the original broad base of the Classic.

PLAN: Underlying the shape of the floor plan—a long rectangle crossed near the ends by two smaller rectangles, and crossed again at its middle by a still smaller rectangle ending in columned porticos—is a basic principle. It was believed that the Gallery should be, essentially, a one-floor system of exhibition space lighted entirely from above, and by natural daylight as far as possible. All administration space, mechanical equipment, storage and the like are kept on



GROUND-FLOOR PLAN.

this main floor, to free it for the display of the major treasures. Minor galleries for temporary exhibitions, and auditorium, a cafeteria and its kitchen, all the work rooms for restoring, copying, framing, crating; locker and rest rooms for guards and other employees —these numerous space requirements are met on the ground floor just below the main floor.

A central rotunda under the dome is reached through north and south lobbies, these being entered from the porticos on The Mall and on Constitution-avenue, opposite Sixth-street. From this rotunda, on the main longitudinal axis, open the East and West Central Galleries, beyond each of which lies a Garden Court. Surrounding this middle stem are the many galleries, small enough and in sufficient number to afford minute subdivisions of the art into its historical and geographical schools. The dividing partitions are non-bearing walls, and can be moved and re-arranged as may become desirable without affecting the structure of the building. The absence of side wall windows also contributes to the facility of rearrangement of space.

Elaborate precautions have been made in behalf of the continued safety of National Gallery treasures. A scientifically planned watchman system is one. Guards are widely distributed through the many intimate galleries and the large public spaces. Within easy reach of any guard is an alarm system centering on a control desk. From here the entrance doors—some of them of bronze weighing many tons—may be instantly closed. Direct wires hook up with fire, police and telegraph offices.

The Gallery is claimed to be the largest marble building in the world—782 by 303 ft., exclusive of steps and approaches. The dome, purposely kept low so as not to compete with that of the Capitol,

LOOKING EAST FROM THE MAIN ENTRANCE PORTICO. IN THE DISTANCE IS THE DOME OF THE CAPITOL.

MAIN ENTRANCE PORTICO ON THE MALL. THE COLUMNS ARE OF TENNESSEE MARBLE.

is 103 ft. high, 101 ft. in diameter. The picture gallery area on the main floor is 126,000 sq. ft.

EXTERIOR: This is in Tennessee marble in a selection of graduated light pinks. Seven quarries sent some 800 carloads of marble to Washington. Seven basic shades of pink and their 26 intershades were charted, starting with the deeper colour at the base of the building and grading up to the very light shell pink at the top. A half-scale section of the building was actually cut and laid up to effect this colour grading—an attempt never before made. Some 35,000 individual stones, totalling 310,000 cub. ft. were quarried, cut to dimensions, polished and shipped to the building. About 1,200 men were at this job for over 20 months. About two-thirds of all the marble quarried was waste (though available for other uses), and only half of the remainder finally became part of the building.

FLOOD CONTROL: The site appropriated by Congress for the Gallery, while one of the finest in the Capital, happens to bring the basement level a little below recorded high-water level of the Potomac River. If the river should overflow, as it did in 1932, there are huge Diesel pumps waiting for it in the Gallery. Any amount of water a flood may bring in will be pumped out before it can touch the ground floor.

INTERIOR: The walls of the rotunda and its flanking public spaces are of Rockmoor Alabama stone. The shafts of the columns are in Verte Imperial marble, Ionic caps and bases being in golden buff Istrian Nuage. Marbles of various kinds, mosaic, oak planks and cork tile form the finished floor surfaces in different parts of the Gallery. For the exhibition galleries generally, wide oak planking is used, in a mellow brown colour. The wide planks are built

U.S.A. NATIONAL GALLERY OF ART, WASHINGTON.

LOGGIA OF ONE OF THE GARDEN COURTS.

VIEW ALONG THE LONG AXIS FROM THE EAST CENTRAL GALLERY OF THE GARDEN COURT.

up of laminated sections of chestnut, with ¼ in. of oak as the finish. In other parts of the building cork tile is used.

Garden courts are built of a buff limestone—"Shawnee Select Buff." Of particular interest are the monolithic columns, 25 ft. long and 4 ft. square, they weigh 40 tons each. The blocks were turned down to size in a huge lathe. To assure the exact uniformity required, this lathe work was performed on the whole 32 columns by one highly skilled mechanic.

ACOUSTICS: Control of unwanted sound was particularly difficult in the galleries with reverberant stone walls. Moreover, the interior wall treatments were made to furnish a sympathetic background for the periods and character of the objects exhibited. These treatments necessarily restricted the choice of materials and barred many of the customary sound-absorbing devices. On the other hand, visitors in an art gallery are naturally quiet, so that there is less than the usual need for quieting noise.

The dome of the Rotunda has an interior surface broken by the architectural coffering, and the central unit of each coffer was provided with a special sound-absorbing element. On the balcony just below this dome, surfaces not visible from the floor below were covered with an absorbent material. Vaulted ceilings of the East and West Central Galleries were lined with absorbent plaster, and a similar treatment was given the small galleries having domed ceilings. Entrance lobby ceilings were coffered, and here, too, the broken surface of the coffers and the central elements of the coffers helped to prevent sound reflections.

On the ground floor, where the architectural restrictions were not so severe, acoustic difficulties were met in accordance with the latest techniques. All machinery was insulated from the structure and base—lead, cork and rubber used for cushioning—and the rooms housing these vibration sources were acoustically treated. Ventilation ducts were lined where necessary to deaden any objectional transmission noise.

AIR CONDITIONING: Air throughout the interior of the National Gallery is maintained at a constant relative humidity of 50 per cent. Air is filtered and cleaned of the sulphur dioxide fumes that injure paintings. A temperature ranging between 70° and 80° Fahrenheit is automatically regulated in its proper relation to the outside temperature.

LIGHTING: Study of the outstanding galleries of the world brought the decision to use overhead daylight wherever possible. In Washington, actual measurement proved this adequate for 85 per cent. of the time the Gallery would be open. Artificial sources of the utmost flexibility in volume, colour and direction serve to maintain ideal lighting at all times. So adaptable is the supply of light and its control that it is possible to light each individual object as may be best for it, even where the needs vary widely in a single room.

The architect's supervisor was Mr. James M. Allen, and builders the Vermilya-Brown Company, Inc.

U.S.A. NATIONAL GALLERY OF ART, WASHINGTON.

THE ROTUNDA UNDER THE DOME.

U.S.A. NATIONAL GALLERY OF ART, WASHINGTON.

THE LATE JOHN RUSSELL POPE, ARCHITECT.

MESSRS. OTTO R. EGGERS & DANIEL P. HIGGINS, ASSOCIATES.

WAR-TIME BUILDING PRACTICE

By R. Cotterell Butler, A.R.I.B.A.

58—WAR-TIME AND POST-WAR REHOUSING: PLANNING A "MINIMUM HOUSE."

THE general question of small and minimum houses for use as detached dwellings in low-density areas was discussed last week.* Types directly related to war-time and post-war conditions were summarised as follows† :—

(*a*) Permanent dwellings providing accommodation specially suitable for persons of limited income, desiring to live in rural surroundings but not directly connected with rural occupations.

(*b*) Permanent dwellings particularly suited to the requirements of rural workers.

(*c*) Semi-permanent or permanent dwellings suitable for use as general living accommodation during the war or immediately afterwards, but subsequently intended to be used primarily as recreational dwellings.

In this article the evolution of a type of dwelling intended to meet the requirements of the first category will be discussed in detail.

GENERAL PROBLEM.

The design of a simple structure essentially suitable for general standardisation and for erection either with or without a considerable amount of prefabrication, to provide reasonable amenity for two adults with the maximum economy. Provision for limited extension to be considered.

* For Housing—as opposed to "houses"—see earlier articles in *The Builder*.

† Designing dwellings for low-density areas on the principle of "shelter hostel in war-time—standard dwellings in peace time" would not seem a reasonable proposition, and this type of structure will not therefore be discussed in connection with low-density development. In any case, the advantages of such a principle depend considerably upon what may be considered an adequate standard of shelter protection.

REQUIREMENTS:

LIVING: A single living-room of the maximum size economically possible. This room should be the basis of the whole dwelling, and other accommodation requirements where they tend to interfere should be considered purely ancillary.

EATING: The allocation of dining-space either off the living-room or the kitchen, sufficient to accommodate up to four persons comfortably (to allow for normal entertaining) and so arranged that expansion to double this figure would be possible if necessary.

SLEEPING: Bedroom accommodation for two adults sleeping in beds (or double bed but not bunks). The space allotted should be as small as possible, attractive amenity being effected by good ventilation and lighting rather than by space alone. Additional emergency accommodation for occasional visitors might be arranged in connection with the living-room or dining-space.

COOKING: Kitchenette, as small as possible, its efficiency depending on careful planning, good lighting and ventilation and use of modern labour-saving equipment, all specially standardised for the particular design.

SANITATION: Standard w.c., bath and lavatory basin, and airing cupboard, the whole incorporated in one unit and based upon normal sanitation and water supply facilities.

GARAGE: Designed to accommodate a reasonable-sized car, and normally allowing additional space for use as a

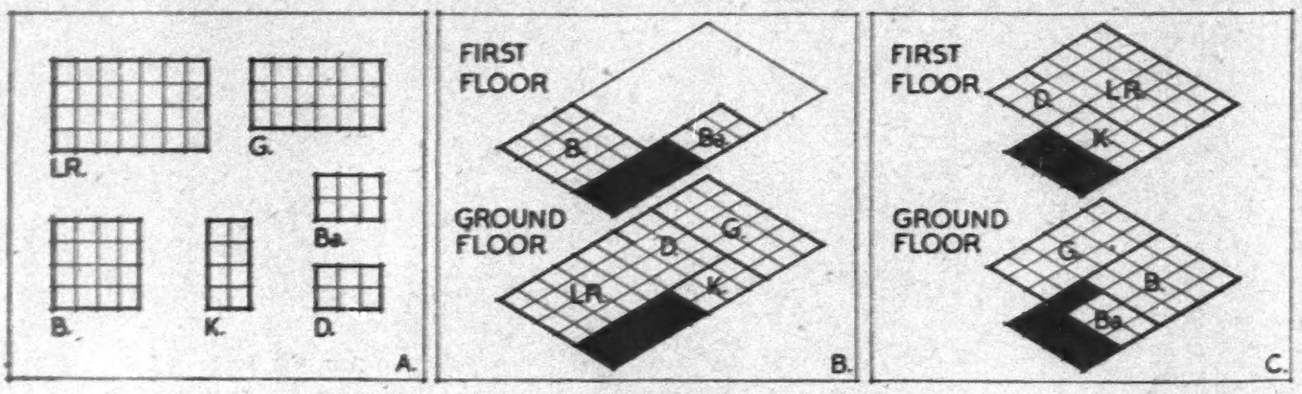


DIAGRAM 1.

DIAGRAM 1. EVOLUTION OF A "MINIMUM HOUSE" PLAN.

A. Basic accommodation allocations (on a 3 ft. x 3 ft. grid).

B. Conventional arrangement of rooms showing disparity between total floor areas (ground and first).

C. Revised arrangement showing even distribution of space between each floor (similar accommodation allocation).

DIAGRAM 2. DETAIL PLAN ARRANGEMENT OF TYPE "C."

a. Ground floor.
b. First floor.

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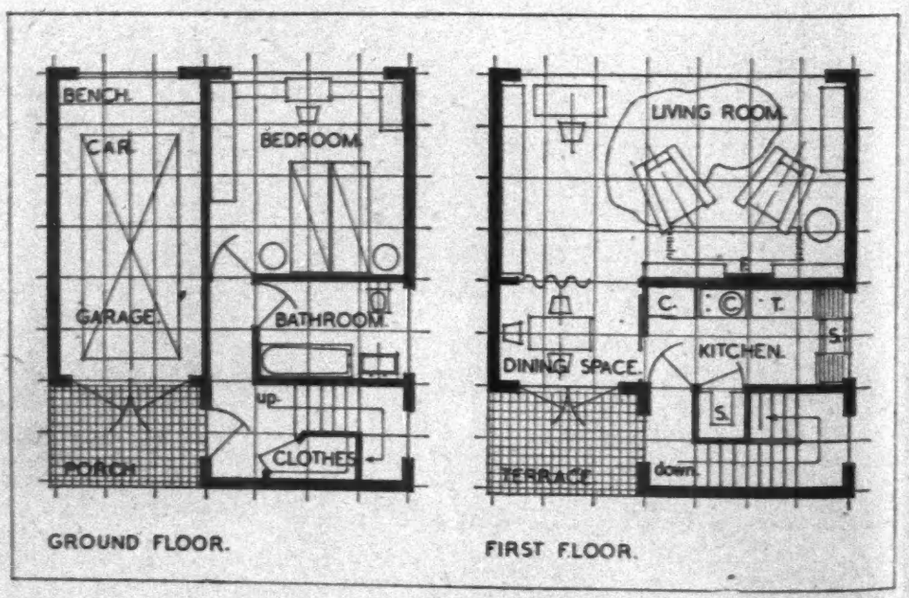


DIAGRAM 2.

store, thus making possible the accommodation of a large car if necessary.

EXTENSION: The general extension anticipated would be the provision of additional bedroom accommodation and/or living accommodation, primarily to allow two adults with a limited family (one or two children) to use the house.

SERVICES: All services should be designed so as to be detailed as a single unit, as compact as possible, and capable of assembly from a few prefabricated elements.

SOLUTION.

STOREY ALLOCATION.—From a general analysis of the requirements outlined above (requirements intended to be representative), it is possible to draft a rough schedule of requirements insofar as space allocation is involved. Thus based on, say, a 3-ft. grid, and excluding extension, and including wall-space.

Living-room	...	252 ft. super.
Dining-space	...	54 ft. super.
Bedroom ...	...	144 ft. super.
Kitchen ...	...	72 ft. super.
Bathroom, etc.	...	54 ft. super.
Garage ...	...	162 ft. super.

On a purely conventional basis the storey allocation (assuming a two-storey structure) would be as follows:

Ground Floor: Living-room. Dining-space. Kitchen. Garage = 540 ft. super.

First Floor: Bedroom. Bathroom = 198 ft. super.

This gives a floor difference of approximately three to one. Obviously in a house of this small size the two largest elements are certain to be the garage and living-room.

While with individually designed and erected dwellings a considerable difference in storey area need not necessarily be troublesome, where a design for considerable repetition is concerned, and moreover one which must be of the maximum possible efficiency, unbalanced storey construction is not a good thing.

Possible solution to this may be:

1. Modify room sizes. In order to effect a balance by this means the bathroom and bedroom accommodation would have to be increased out of all proportion to their requirements in this type of dwelling, or other rooms so reduced as to make them valueless.

2. Separate garage from rest of dwelling, or single-storey garage. This by itself would not entirely overcome the difficulty, and the full advantages of a single co-ordinated structure would be lost. Again, the garage would be less suitable for conversion at any time into a further room, and its high proportion of external surfaces would make thermal insulation costly.

3. Build the entire structure single storey. Unless it were possible by this means to employ a much lighter form of construction, the building would be certain to cost more than a compact double-storey dwelling. Additionally, since the dwelling being considered is not for a rural worker, it is likely that a large spread of building involving greater frontage would be undesirable.

4. Re-allocate position of rooms. Only one possible method of doing this presents itself: bedroom, bathroom and garage one floor (obviously, it would have to be ground floor), and living-room, dining-space and kitchen first floor. Otherwise, it would be necessary to have the kitchen separated from the main living area, or alternatively, the bathroom away from the bedroom.

This plan arrangement admirably solves the problem of evolving a compact minimum dwelling effectively balanced in ground- and first-floor areas (see Diagram 1), but it is admittedly unorthodox, and may be said to present possible disadvantages.

(*a*) Having the living-room, dining-area and kitchen upstairs, absolute continuity between living-space and garden is not possible. This is not necessarily undesirable provided some direct garden access is arranged, and this may take the form of a light external stairway.

(*b*) It might be argued that the kitchen on an upper floor would be inconvenient, but the number of callers likely would hardly justify this as a disadvantage, and if desired the lower storey could be cut off from the staircase by a main door, and the door to the kitchen and living room used as a main entrance.

(*c*) The third possible disadvantage would be having a ground-floor bedroom. This has already been discussed previously, and is largely based upon traditional prejudice. It is relatively unimportant in connection with a dwelling of the detached type standing in its own grounds.

Against these possibilities there are several important advantages.

(*a*) A simple structural form with equal storeys is obtained, making possible the maximum accommodation within a minimum of perimeter, thus being most economical and minimising thermal losses.

(*b*) All room elements are natural predetermined minima, unforced by other planning requirements.

(*c*) A spacious living-room is possible without loss of balance, and an enhanced aspect may often be obtained due to its high level.

(*d*) Efficient sequences between room-elements are practicable, thus:—

Kitchen—dining-area—living-room.

Bedroom—bathroom.

Washing facilities available immediately on entry into house.

(*e*) A simple, straightforward service unit is obtainable suitable for easy standardisation, and enabling the maximum of prefabrication to be adopted.

LAYOUT OF INDIVIDUAL ROOMS—FITTINGS SERVICES AND EQUIPMENT.—A detail layout of the individual rooms may be seen from the sketches in Diagram 2, which fully explain the fittings and equipment suggested.

Notes on services, the design of fittings and equipment, and structural detailing generally will be given in later articles dealing particularly with these aspects in connection with small and minimum houses, and emergency housing generally.

EXTENSION.—In order to accommodate two adults with a small family (one or two children), a new wing on the opposite side of the staircase from the main building could be added without in any way interfering with the normal operation of the plan.

Since the first extension required would obviously be additional bedroom space rather than living accommodation, the extension could be a simple single-storey structure, living space over being added when necessary.

To conclude this group of articles on the general planning of small houses in connection with war-time economies and war-time and post-war developments generally, the design of a typical minimum dwelling for rural workers will be considered.

(To be continued.)

Quasi-Official Building.

In a circular (No. 2429) issued to local authorities and public utility undertakings, the Ministry of Health, with reference to Circular 2371 of May 14, regarding the allocation system introduced by the Minister of Works and Buildings for the purposes of the national building and civil engineering programme, state that the Minister of Works and Buildings considers it essential that he should have, month by month, as accurate a picture as possible of the progress of the programme and the position regarding the employment of labour on it. As regards those works of local authorities, etc., and public utility undertakings with which the Minister of Health is normally concerned as the central authority, the question of the information to be supplied has been carefully reviewed between this Ministry and the Ministry of Works and Buildings with a view to minimising the burden entailed.

It is essential that these returns should be rendered in prescribed form to the Ministry of Health not later than the fifth day in the month following that to which they relate.

Change of Address.

Clay Products Technical Bureau of Great Britain and Building Industries Services, Ltd., have changed their address to 110, St. Martin's-lane, W.C.2. Temporary telephone number: Temple Bar 1428.

Brick Industry Committee.

The Minister of Works, in view of the importance of an efficient brick industry, both during and after the war, has decided, with the agreement of the industry, to appoint a committee, representative of all interests, to advise him on the subject. Mr. Oliver Simmonds, M.P., has agreed to be chairman of the Committee, which will, in particular, advise on steps to be taken to secure adequate output, maximum co-ordination, pooling of resources and information, economy of manufacture and introduction of more scientific methods. The Committee will first consider steps to be taken immediately to assist the war effort.

THE ARCHITECTURE CLUB

REPLANNING OUR OLD CITIES

A MEETING of the Architecture Club was held on Wednesday, July 9, at the R.I.B.A., when MR. F. J. OSBORN gave an address on "The Replanning of Our Old Cities."

MR. R. HOLLAND MARTIN, who was in the chair, in the course of some introductory remarks, said those who were replanning for reconstruction must think of what lay underground. In making a new street they must not forget the water mains, electric light cables and so on that underlay the old street and could not be moved at once.

MR. OSBORN said detailed planning was impossible because we did not know the ultimate fate of any area or city. General principles only could be considered, but it was a matter of desperate urgency that we should agree on general principles. The machinery of planning had to be constructed, and it was necessary for the planning movement to give greater attention to the kind of planning required in order that a satisfactory machine might be produced. We could arrive at general principles and start the provisional planning of certain areas if we had the aims of planning generally stated.

Every square inch of land as yet unbuilt on within 20 miles of Charing Cross should be kept from building, also all our best agricultural land. It was practicable to preserve 29,000,000 out of our 30,000,000 acres of agricultural land, but the preservation of the countryside should not involve the fencing in of the city millions in their present overcrowded conditions. Our cities had been a source of acute dissatisfaction to humanity certainly ever since the industrial revolution, and the idea of planning in the sense of getting rid of confusion and introducing beauty into everyday life was now accepted by almost any intelligent audience; but a revolt against muddle and a passion for beauty were not sufficient to produce a good town. To have a good town, it was necessary that it be planned to meet family, industrial and community needs. In the past, planning had provided pleasant surroundings for middle-class people, but so far as concerned the working class it had considered industry almost solely.

There was a British ideal of family environment which contained, among other things, a sense of the continuity of the dwelling, the desire to conceive the house as one in which you and your forefathers had lived. This British ideal also involved access to the earth in every sense of that phrase—*i.e.*, there should be the ability to get easily into and out of your own private garden, the ability to enjoy the growing of things, the light and air and pleasant outlook which went with a garden.

Besides access to the earth, there should be access to work, to shops, to entertainment and to the open country. If we looked after these things, other interests would look after themselves.

This necessity of good family environment could be translated into terms of maximum density. The 12 houses per acre proposal was a well-worked-out and practicable one, but it should be translated somewhat differently today because of the enormous variations from place to place, and from one individual case to another in the size of families. He himself would translate it into some number of square feet per acre. A hardly tolerable maximum density was 15,000 square feet per acre, and if we could get the authorities to agree that nobody should build more than 15,000 square feet upon the acre, we might leave it to demand as to whether building should be in two-storey houses, 10-storey flats or one-storey bungalows.

The grouping of industry was a special study, to which useful thought had been given in the last few years. While some industries should be strictly confined, others should be allowed latitude of choice. The planning movement should try to enter into this sort of bargain with industry: "We are going to plan in order to get your individual factory a better site, better services, easier transport conditions, room for extension and space, and good housing conditions for your workers within easy distance; but, on the other hand, we are going to ask you to accept some control of district location, the actual particular area where you are to go." Industrialists would see that it was to their interests to make such a bargain. There should be a certain amount of financial or other inducement to an industry to go to a particular place.

If we could get the element of control of location of industry after properly studying all the genuine requirements of industry, we should have the factor which would enable us to decentralise and reduce the density of our overbuilt towns. Before the war, it would have taken 50 years to make any impression in the endeavour to move industries out of London. But now industries had moved. Ties had been broken, and the question was how far we should allow them to be retied. This question involved in every area a quantitative study of the amount of industry which ought to be allowed to come back in relation to the possibility of housing the people within reasonable distance of the place of work. There was no real conflict between industrial and human requirements.

If we were to replan our old cities on less dense lines, what were we to do with the spillover? It would be necessary to have a certain number of new towns. He was against high buildings for domestic purposes, but monumental effects could be got by high commercial and industrial buildings. In town planning, transport was a good handmaiden, but easily became a peremptory and troublesome mistress. Reasonable grouping of the functional parts of a town reduced the amount of internal transport.

Discussion.

MR. W. H. ANSELL, P.R.I.B.A., said that he had received a letter from Mr. A. H. Mackmurdo, now 90 years of age, who in the latter part of the last century had been a considerable influence. The letter was accompanied by a paper which Mr. Mackmurdo had put before Mr. Patrick Geddes in the 'eighties. It was essentially up to date. It recognised that a town should be an organic thing. It set out all the nuclei of a satisfactory town, including residential areas, the amount of open space and civic area. The town was thought of from the beginning as an organism for living in. As to present problems, one point architects had to face was the practical side of rebuilding bombed cities at a time when the shortage of materials and of skilled men would be such that it would be impossible satisfactorily to build large areas permanently at the rate at which rebuilding would be required. He visualised an interim period during which some of our cities would be rebuilt almost on the constructional lines of a great exhibition—*i.e.*, of light steel with plastic slabs. Such work would last 10 or 15 years if necessary. There would be an opportunity for temporary building for services and activities which must be carried on to some extent without interfering with the permanent replanning of a locality. Parts of London might have these exhibition buildings. Great halls might also be built like those in the exhibitions of Paris and New York. Within these halls commerce and industry might be happily housed for the time being, so that when planning and final reconstruction were done they might be done properly. It would be disastrous to have a London that carried for centuries the obvious stigma of being built at a time when there was very little material to build with and very little skilled labour. An interim period such as he proposed would, to a great extent, prevent that. With Mr. Osborn he was against tall buildings for industrial dwellings, because these did not give children a chance. There should be no blocks of flats higher than three storeys at the most.

PROFESSOR PATRICK ABERCROMBIE said we did not know the immediate future of destruction nor the more long-distance future of national planning. We did not know to what extent industry would be stimulated to go to certain districts or discouraged from returning to London. Mr. Ansell's suggestion had a danger: a French proverb warned us that nothing endured like a makeshift. Planning research was needed, but there was a great deal to be said for getting to work at once. The rôle of the architect in planning was to forecast the future. Architects could do this better than engineers or surveyors.

MR. HENRY STRAUSS, M.P., said that what we had chiefly to do was to see clearly what should be avoided. Town and country were both necessary: one gave us greenness, solitude, recreation and serenity, while the other gave us the arts and graces of life. But we were destroying both and creating in their stead a universal suburbia without the charm of either. He wondered whether all the Acts of all the Governments had done so much for the happiness of the people of London as the mere existence of Richmond Park? Yet, if we had not been insane after the last war, there might now be such parks in every direction around London.

MR. OSBORN replied to the discussion, and a vote of thanks to him ended the meeting.

"THE BUILDER"

Owing to existing conditions it is only possible to supply copies of *The Builder* to order. Should readers experience any difficulty in obtaining their weekly copy it is advisable to take out a subscription direct with *The Builder* Office, which will ensure their receiving a copy and to time. Rates post free for Great Britain and Ireland, 12 months, 45/6; 6 months, 24/-; 3 months, 12/6. The Publisher, *The Builder*, Ltd., 4, Catherine Street, W.C.2.

POST-WAR RECONSTRUCTION

MR. W. T. CRESWELL'S LECTURES.—NOS. 9 AND 10.

PROBABLE modifications in building laws, both statutes and by-laws, was the subject of the lecture given by MR. W. T. CRESWELL, K.C., in this series at the Regent-street Polytechnic School of Architecture on July 7.

The lecturer outlined the existing law relating to the provision of open spaces in and around buildings, both in the metropolis and beyond it, under the London Building Acts and Public Health and Housing Acts; noting also that much had been done in this connection by private enterprise and the generosity of landowners and others having special and active pride in preserving beauty in towns and the countryside.

The war damage and the evacuation of households and businesses from towns had, he said, crystallised as nothing could have done in normal times a universal agreement that in rebuilding, and also in town and country planning, advantage must be taken of the wide-flung opportunity thus created for great and wise reforms.

Decentralisation of congested commercial and manufacturing cities and large towns and the laying out of open spaces within them would ensure against densely populated areas. Of assistance in this transitional stage would be, no doubt, the many factories which had been built specially for making munitions, and which could be adapted to the manufacture of things which would be then in demand from every side. The aim was also that the man who wished would be always able to have his house and garden rather than the flat or tenement to which convenience for his work now often condemned him.

A rigid maximum of density of population must be set for each area, and the distribution of shops, markets, and residences carefully planned to meet each city, town and village, leaving opportunity for expansion where this could be foreseen. In the past the density of population in some areas had been increased by an effort to increase the rateable values in those areas by building development at a sacrifice of the health of the district. By instituting some central control this sort of isolated effort would be checked.

In his concluding lecture on July 10 the lecturer amplified suggestions he had made earlier on in the series as to desirable amendments which in his opinion should be made to certain Acts of Parliament now in existence, as also to certain by-laws generally adopted. Starting in the Ministry of Works and Buildings as a basis, the State could, he said, consolidate and amend much in existing law which tended to cause unnecessary delay and expense; and also vexation which led to litigation. As examples, he quoted the law

relating to air and light, rights of way, rights of support, and rights in water. Statute and case law, as operating now in and outside the metropolis, afforded some curious and interesting examples of the difficulty attending the development of land. Concerning freehold property, under Section 84 of the Law of Property Act, 1925, it was possible to claim the removal or modification of any restrictive covenant which for any reason had become obsolete or whose continued operation would injure the claimant without benefiting others concerned. These provisions might be fully extended to leasehold property. The lecturer stated that in many instances statute and case law governing the powers and rights of owners of land was not possible of understanding. Much could be done to facilitate and expedite the acquisition of land by amending the Acquisition of Land Act, 1919.

There should be an implied assurance to the public that compliance with by-laws amounted to a warranty that a building was actually built in an efficient and workmanlike manner with proper materials, and, in the case of a house, that it was actually and in fact fit for habitation.

In passing, it must be noted that the habitation certificate of a local authority had no legal effect; and, for example, a purchaser or an intending tenant of a house was put to the expense of employing a competent person to "vet." it if he wished to be certain of its worthiness.

THE FUTURE OF THE BUILDING INDUSTRY

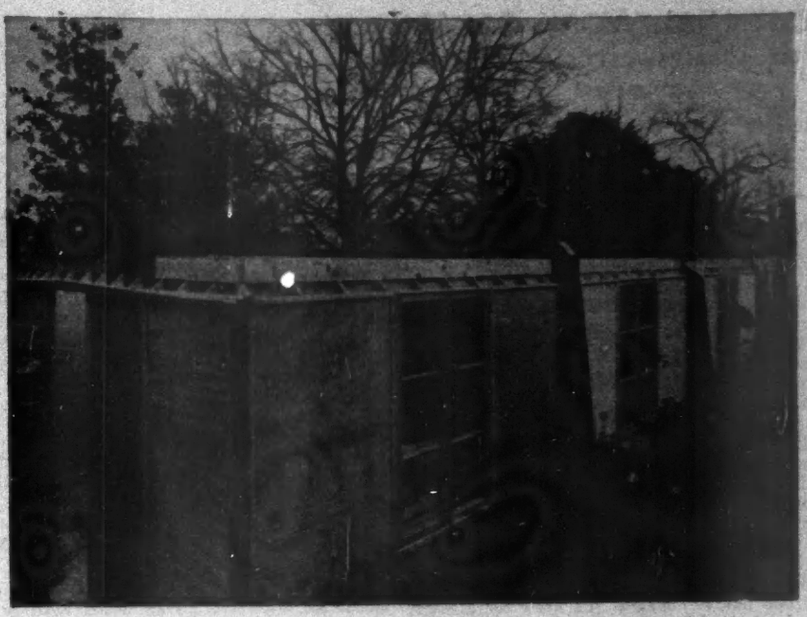
CONFIDENCE in the future of the building industry was expressed at the Federation luncheon in Exeter, on July 2, by MR. W. H. ORROM, Secretary of the South Western Federation of Building Trades Employers.

Mr. Orrom recalled radical changes in the industry in recent years, and said that more were to come. At one time temporary extinction of many builders seemed inevitable. The Federation saw the danger and, by making representations to the Government, averted what might otherwise have been a catastrophe.

To achieve maximum specialised results—and specialisation was the order of the day—it was necessary to know the capacity of firms and of grouped firms. Registration was but one phase of a far-reaching programme, which had for its object the institution and maintenance of a stricter and more orderly regulation of the industry's activities, and ensuring the services of *bona-fide* building employers.

A truly great people would have the desire to establish sufficiency with security for all classes, but systems varied. The British system, while tending towards greater Government control, would retain the enterprise of the individual. England, engaged in a war to discipline a totalitarian State, would be particularly careful to avoid the establishment of any form of autocracy; otherwise the war would have been in vain. Possibly, organisation of the building industry might proceed along lines analogous to those of the Central Electricity Board and other public utility undertakings. The Ministry of Works and Buildings—acting in close co-operation with representatives of the industry—would certainly be engaged in all-embracing schemes for the welfare of the industry as a whole. There might be some sort of fusion of kindred organisations. The complexion of the Federation would undoubtedly change and the joint duties of employers and operatives assume still greater importance in the process.

"The work of reconstruction and development," declared the speaker, "gives assurance of permanent prosperity to the industry. The relief which economic security brings to the human mind should enable the industry with broad vision to devote unstinted constructive thought to its promising future, so that 'sufficiency with security' shall not be a mere slogan, but shall be and remain an accomplished fact, in the widest sense, for all time and for all those who, by individual and unselfish effort, contribute to the common good."



THE "SECO" HUT.

EMERGENCY INQUIRY BUREAU

Questions from readers arising out of War-time difficulties and recent Emergency legislation will be answered by a special staff of contributors. Questions, which should be addressed to the Editor, should be accompanied by a stamped addressed envelope.

Purchase Tax and Government Sub-contracts.

SIR,—*Is a sub-contractor supplying plant to a Government building job exempt from purchase tax?* FINCHLEY.

No. Exemption from tax is allowed only to direct sales by a registered firm to an Exempt Department. Exemption does not apply to sub-contracts, and sub-contractors engaged on Government work cannot buy or sell tax free on that account. Such a sub-contractor, if registered and selling chargeable goods, must charge tax in the usual way, unless the main contractor is also registered and is purchasing the goods as stock or materials under his registered number.

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HUT CONSTRUCTION

THE USE OF STANDARD UNITS.

A system of constructing hutments and other temporary structures utilising standard wall, roof, window and door units has recently been devised by which the use of steel is eliminated and only the minimum amount of wood required. In this "Seco" system the units are rigid, have high thermal value and are extremely easy to erect. In the main, unskilled labour only is required for their assembly. Two forms of construction are available:—

(1) The open floor type, suitable for canteens, army huts, storage, machine shops, emergency hospitals, etc. This is made possible by the use of a specially-designed lightweight beam and columns, the infilling between beams and columns being carried out in standard wall, window and door units. The beams are obtainable in spans ranging from 16 ft. to 29 ft., and are so light that they can be handled easily by two men.

(2) The cellular construction is obtained by utilising standard units for partitions and corridors. The roof units are carried by the corridor units, the junction being effected, both in this type and in the open floor type, by a specially-designed eaves piece. This form of construction is suitable for hostels, offices, etc., where small-size rooms are required.

All units as well as eaves pieces, etc., are prefabricated and arrive ready for immediate assembly on a prepared foundation raft. The assembly is quick; it is estimated that eight men can erect a building 75 ft. by 19 ft. in four days. Waterproofing is achieved by use of a special system.

A demonstration building has been erected in Guildford and is being utilised as a canteen for nurses. A further demonstration, to the order of the Ministry of Works and Buildings, has been completed by the company in question, Selection Engineering Co., Ltd., the building (75 ft. by 20 ft., comprising 60 ft. of open floor and 15 ft. of cubicles) being erected by five men under a foreman in a total of 330 man-hours—equivalent, approximately, to six working days. During this period the "Secomastic" waterproofing treatment to the whole of the roof, beams and columns, and external walls, was carried out in 142 man-hours. The company is making arrangements for the establishment of a number of principal manufacturing centres ranging over England and Southern Scotland, and is inviting members of the industry, willing to collaborate and having level covered floor space available, to get into communication at the emergency address, 6, Wood's-mews, Park-lane, W.1.

"Architects and Unemployment."

The questionnaire on this subject given in our issue for July 4 was published in error and should be disregarded.—ED.

ESSENTIAL WORK ORDER

MR. LUKE FAWCETT'S COMMENTS.

THE following statement has been issued to members of the Amalgamated Union of Building Trade Workers of Great Britain and Ireland by MR. LUKE FAWCETT, President and Acting General Secretary :—

"The Government regards the completion of certain building and civil engineering works as vital to the war effort. Speed is so essential in these cases that they feel obliged to put forward on their own initiative proposals for payment by results with the object of securing the increased production necessary to get these works completed."

Thus reads the first paragraph in the statement issued by the Ministry of Works and Buildings on behalf of the Government. These proposals are now being applied—applied to the workers in the building and civil engineering industries, not by the employers but by the Government.

It must be realised that the Government is acting under great pressure and urgency. The war has entered a highly critical phase. It is being waged with increasing intensity on all fronts. Russia is now desperately involved. The titanic struggle in Eastern Europe has emphasised the need for greater production and military endeavour here in Britain.

The successful prosecution of the war is the supreme task and problem before us all. Domestic issues and industrial questions are subordinate to its requirements. Everything is at stake in the struggle. Whatever does not contribute to success in the war, help towards victory, is of secondary importance, and must be set aside, or dealt with without impeding the war effort. The Essential Work (Building and Civil Engineering) Order, 1941, is now operative. Payment by results will, from now onwards, be applied to selected building jobs. What must be our method of dealing with the system?

We are opposed to it. That opposition has been expressed by the Executive Council of the Union and by the Executive Councils of the other Unions in the Building Industry and by the National Federation of Building Trades Operatives.

It has been emphasised in conferences with the employers, and in consultations with the Ministers of Labour and Works and Buildings, and other representatives of the Government Departments concerned.

To meet the position the Conference of Executive Councils of the Unions, called by the N.F.B.T.O. on May 28, 1941, passed the following resolution :—

"That this Conference places on record its unalterable opposition to any system of piecework or payment by results, believing that such methods of remuneration are neither in the interests of the operatives, nor calculated to promote the increased production they are designed to stimulate.

"Should any such system be imposed on the industry under the Essential Work Order, the Union Executives here assembled pledge themselves to use every endeavour to limit the scope and operation of such payments and to take every step possible to safeguard the interests of those of our members who may be affected by its introduction."

Payment by results is now a reality. It is in practice. As practical men we have to face and deal with that fact. What can we do?

The needs of the war are over-riding. We must get on with the building jobs. Nothing must be permitted to interfere with the speediest building production. We cannot take the action we would take in normal times. We cannot strike. To hinder or delay building would be to act against our own interests no less than the interests of our people and country. We are under imperative legal and moral obligation to work to the system. Look at the matter how we like, from whatever angle, there is no escape from that conclusion, with but the one proviso of using every opportunity provided by the negotiating machinery of our Union, together with the other Unions and the N.F.B.T.O., in pressing for its abolition. In present circumstances it is Hobson's choice. We can do no other than make the best of it, with the resolve to end it as soon as possible.

How can we make the best of it? We can do that by :—

1. Ensuring complete Trade Union control of all bonus jobs.

2. Making certain that there are no individual arrangements or contracts between certain workmen and the employers. We cannot tolerate bell-horses, receiving bonuses on the sly.

3. Spreading the bonus over as large a body of workers as possible, thus achieving the utmost Trade Union collective bargaining and avoiding loopholes for victimisation.

4. Aiming at the pooling of all bonuses earned by all working on the same class of work, thus avoiding friction on the job.

5. Ensuring that consideration is fully given to work of a more intricate nature, or carried on under adverse circumstances, and to delays and difficulties arising outside the worker's control.

BONUS RATES PROPOSED BY GOVERNMENT FOR BRICKWORK.

Reference was made in our last issue (page 38) to an appendix giving bonus rates proposed by the Government for brickwork under the above Order. The rates are as follows :—

Bricks and mortar to be delivered within 30 ft. of work.

Scaffolding to be dealt with separately.

Normal plumbings.

Works to be measured weekly, all into a solid basis, including all piers.

Where 90 per cent. of work is of the same type, no deviation from the type shall be made for the remaining 10 per cent.

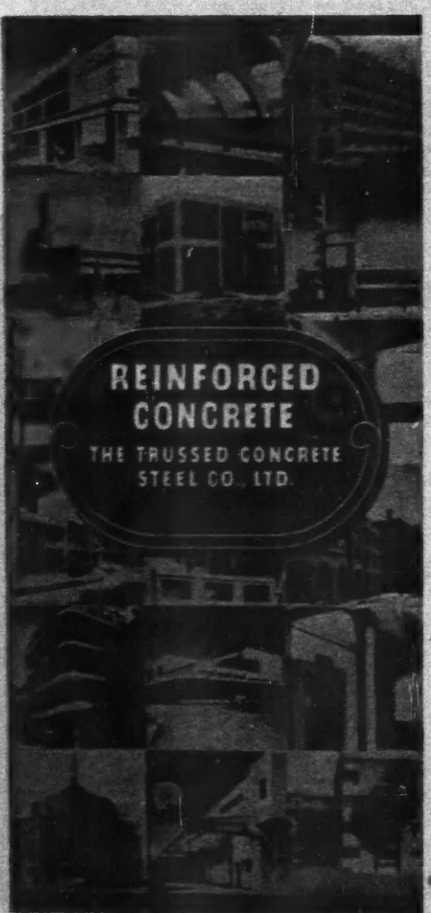
Basis per bricklayer per hour. Bonus.

4½ in. work, left rough, 40 bricks, 4s. 6d. per 100 bricks per bricklayer.

9 in. work, left rough, 50 bricks, 3s. 6d. per 100 bricks per bricklayer.

14 in. and over, left rough, 60 bricks, 3s. per 100 bricks per bricklayer.

Total hours to be divided by total number of men in gang, including ganger. Ganger to have one-eighth, and remainder to be divided, two-thirds to the bricklayers and one-third to labourers.



A.R.P. SCHEMES

LONDON.

Woolwich.—B.C. have decided that Boro' Eng. execute strengthening basement shelter at Woolwich Polytechnic at £486. Boro. Eng. to carry out blast walls at first-aid posts and cleansing stations in borough, at £566. Public surface shelter at Eltham Green to be adapted by Boro' Eng. as first-aid post, at £706.

PROVINCIAL.

Ashington.—U.D.C. to erect domestic communal shelters at East Villas, at £1,500. Plans by B. Preston, Sur.

Bolton.—T.C. approved gas-proof rooms to schools, at £1,850. Plans by Boro' Sur.

Bury.—T.C. to repair cracked shelters at Unsworth. Plans by J. Chadwick, B. Eng.

Durham.—T. Swan & Co., Consett, have secured contract for 62 communal shelters at Coxhoe, for R.D.C., at £4,164. S. Dodds, Sur., prepared plans.

Felling-on-Tyne.—Architect to E.C. prepared plans for further shelters at St. John's infants' school and Felling school.

Gateshead.—T. C. received consent to build 711 shelters at £17,570, and 737 at £14,265.—Five communal shelters proposed in Edward-st. and Alfred-st., seven in Monk-st., St. James'-sq., etc.—T.C. to demolish and rebuild six shelters in Railway-st.—T.C. to spend £760 on work at A.F.S. stations. Plans by F. H. Patterson, Boro' Eng.

Mansfield.—T.C. propose 48-person shelters and external lighting of shelters. Plans by W. Thompson, Boro' Sur.

Newcastle-under-Lyme. — T.C. propose domestic communal shelters of new types (L and K). Plans by A. Cotton, Boro' Sur.

Scarborough.—T.C. approved plans by J. R. White, County Architect, Northallerton, for shelter at children's home, Whin Bank, for North Riding C.C.

Stockbridge.—U.D.C. placed contracts for shelters with E. Cutts, Ltd., and G. H. Smickergill.

Swansea.—C.B. to erect temporary shed for mobile units at £120.—Victoria stores, Morriston, to be adapted as casualty service depot subject to sanction from Welsh Board of Health and Ministry of Home Security. Cost £1,476.

Wakefield.—T.C. to instal decontamination tank in sanitary steam laundry, Grantley-st. Plans by S. G. Wardley, City Architect.

Warwickshire.—E.C. propose shelters at nine schools for 14,000 scholars, and reconstruction of lime-mortared school shelters. Plans by A. C. Bunch (F.), C.A., Warwick.

Wenlock.—T.C. propose decontamination depot, Broseley.

West Hartlepool.—E.C. placed contracts for school shelters with T. M. Stonehouse, Ltd., and Peel and Herbert (6 shelters); C. M. Yuill, Ltd., and J. Proud, Ltd. (8); H. Ripley (5); W. Pearson & Son (4); R. Rennie & Son (1); and L. Dobson (1). (All of West Hartlepool.)

Whitby.—For three groups of domestic and communal shelters, R.D.C. has placed contracts with Del Theaker & Co., Ltd., of Staithes, at £2,342. Plans by J. W. Berekon, Sandhills, Sandsend.

Worcestershire.—E.C. to erect shelters for schools in rural areas—Tender of W. Weaver, Ltd., the Strand, Bromsgrove, accepted, at £253, for baffle walls and waterproofing roof of shelters at eight schools. Contract let to J. & A. Braxier, Ltd., Worcester-rd., Bromsgrove, for repairs to roofs of shelters at St. Chad's school, Rubery. H. Rowe & Son, architects, 38, Foregate-st., Worcester.

SCOTLAND.

Glasgow.—The tender of Hunter & Clark, Glasgow, at £2,259, has been accepted for decontamination centre at a police station. Plans by T. Somers, Municipal Buildings.—Plans in hand for shelters, Dennistoun school. Plans by J. McNab, 129, Bath-st.—Protective scheme, cost of £1,000, at telephone battery-room, police headquarters, to plans by T. Somers.—T. Somers, Municipal Buildings, prepared plans for shelters at Crookston Home. Contractors are W. Taylor & Sons (Glasgow), Ltd.

Lanarkshire.—C.C. to spend £60,500 on shelters, etc., for schools. Plans by W. Watt, Albert-st., Motherwell.

Paisley.—T.C. propose additions to shelters at Williamswood school.

CONTRACTS OPEN

For some contracts still open, but not included in this list, see previous issues. Those with an asterisk are advertised in this number. The dates at the head of paragraphs are those for the submission of tenders: a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING.

JULY 19.

Kendal T.C.—Chlorination house near Greyhound Farm. G. German, Boro. Eng.

JULY 21.

Gravesend T.C.—Permanent repairs to properties. Boro' Architect.

JULY 22.

West Riding C.C.—Work in council schools. A. Beilby, divisional clerk, 29, Standard-hse, Huddersfield.

JULY 23.

Burton-upon-Trent C.B.—Repairs to properties, Carlton-st. Boro. Eng. and Sur.

Epsom and Ewell T.C.—Strengthening of surface shelters on eight sites. Norman Auty, Boro' Eng. Dep. £2 2s.

JULY 24.

***Coventry E.C.**—Erection of hall-gymnasium and incidental extensions. Dir. of Education. Dep. £1 1s.

JULY 25.

Bromley T.C.—Brick surface shelter. Boro' Eng. Dep. £1 1s.

***Corby U.D.C.**—Repairs to nine houses. R. J. Williams and Partners, architects, Market-st., Kettering. Dep. £1 1s. payable to Corby U.D.C.

Leatherhead U.D.C.—Seven air-raid wardens' posts for U.D.C. J. L. Davies, Eng. and Sur. Dep. £1 1s.

Stafford.—Repairs and restorations, etc., Ct. Mary's church. G. C. Scott and W. B. Moffatt, architects, 20, Spring-gdns., London. July 25.

JULY 28.

Enniskillen U.D.C.—Four air-raid shelters, Riverside. J. Donnelly, Boro' Sur. Dep. £1 1s.

Glamorgan C.C.—Work at police station, Maesteg. D. J. Parr, deputy clerk, County Hall.

Romford T.C.—Two reinforced brick surface shelters at Market-pl. C. G. Alderton Boro. Eng. and Sur. Dep. £1 1s.

JULY 29.

Consett U.D.C.—Lining with concrete "Anderson" shelters. T. P. Leath, Property Sur., Blackhill, Co. Durham.

Coventry T.C. 50-person type public communal shelters on various sites. E. H. Ford, City. Eng. and Sur. Dep. £3 3s.

JULY 30.

Dublin.—Alterations and repairs, Relief Office, Eustace-st. J. W. O'Sullivan, architect, 104, Grafton-st. Dep. £3 3s.

JULY 31.

Waltham Holy Cross U.D.C.—Construction of a multi-services depot. C. Casling, Eng. and Sur.

AUGUST 2.

Bridgnorth T.C. — Mortuary, Innage-la. I. M. Nicholson, Boro. Eng., College-hse. Dep. £2 2.

AUGUST 8.

***Bristol Corporation.**—Civil engineering and building works. Dep. £10 10s.

NO DATE.

Somerset C.C.—Structural precautions at Chard sanatorium. R. O. Harris (A), County Architect, Park-st., Taunton.

PAINTING, ELECTRIC LIGHTING, HEATING, &c.

JULY 21.

Bradford T.C.—Internal painting at central and three branch libraries. City Architect.

Caernarvonshire E.C. — Painting and decorating schools and school houses. Director of Education.

Spenborough U.D.C.—Internal decoration to five schools. J. Wallbank, Sur., Church-st., Cleckheaton.

Sunderland T.C.—Asphalt, ironmongery, sanitary fittings, and terrazzo paving and wall lining at crematorium, Bishopswearmouth cemetery. Boro' Eng.

JULY 22.

Pudsey T.C.—Painting work at Westroyd House (external), Frances-st. school (external), Calverley council school (external), Wesley-st school (internal). Boro. Sur.

Weymouth and Melcombe Regis T.C.—Installation of hot water supply at two proposed gas cleansing stations. Boro. Sur., 6, Pulteney-bldgs.

JULY 23.

Batley T.C.—Internal and external painting of schools. Boro. Eng.

Castleford U.D.C.—Painting of 600 houses. Eng. and Sur. Dep. £1 1s.

Oldham C.B.—External painting to 111 houses on Hathershaw estate. F. G. Walshaw, housing manager, Corporation Housing Dept., Rhodes Bank. Dep. £1 1s.

JULY 25.

Tadcaster R.D.C.—External painting of 296 houses. J. Worthington, Eng. and Sur. Dep. £1 1s.

West Riding C.C.—Internal painting Drax grammar school. E. and T. Clark, solicitors, Snaith.

JULY 26.

Dukinfield T.C.—Exterior painting of 70 houses. S. A. Smith, housing manager, Room 1, Town Hall.

Eccles T.C. — Exterior painting of 381 houses, Westwood Park estate; 70 houses, Edison-rd; 8 houses, King-st. Boro. Eng. and Sur.

Rochdale E.C.—Internal and external painting of schools. Director of Education Townhead, Rochdale.

West Riding E.C.—Internal decoration and external painting of Bingley Eldwick School. E. B. Nelson, Education Office, Bingley.

JULY 31.

Stretford T.C.—External repainting and renovating of 203 houses. H. B. Poulton, Estates Manager.

NO DATE.

Berkhamstead U.D.C. — Painting and decorating, etc., at Aldbury Isolation hospital. J. Oakes, Sur.

MATERIALS.

JULY 23.

Birmingham T.C.—Builders' materials, etc. City Eng. and Sur.

ENGINEERING, IRON AND STEEL.

JULY 21.

Halesowen T.C.—Water supply basin of 250,000 gallons. Boro. Eng. and Sur. Dep. £2 2s.

JULY 22.

Bideford R.D.C.—Providing and laying 1,046 yds. of 3-in. asbestos-cement pipes and 483 yds. of 4-in. pipes; collecting and storage tank; provision and fixing of standpipes, valves, hydrants. Sanitary Sur., 2, Queen Anne's-bldgs., High-st.

Skipton R.D.C.—Laying of approx. 600 yds. of 2-in. and 3-in. asbestos cement water mains, together with necessary sluice valves, fire hydrants, etc., also construction of service reservoir and chlorinating house. A. Rodwell, Eng., Granville-st. Dep. £2 2s.

JULY 23.

Blackwell R.D.C.—Seven static water supply basins. A. H. Elliott, Eng., 100, Chesterfield-rd. South, Mansfield. Dep. £2 2s.

JULY 25.

Stourbridge T.C. — Dam, Wollescote-pk. G. N. Maynard, Boro. Eng. and Sur.

AUGUST 4.

Newry (No. 2) R.D.C.—Water supply system for town of Bessbrook. N. O'Dwyer, 6, Burlington-rd., Dublin, or J. L. O'Hagan, Eng. to Council, 2, Kildare-st., Newry. Dep. £5 5s.

ROAD, SEWERAGE AND WATER WORKS.

JULY 24.

Wareham and Purbeck R.D.C.—450yds. of 6in. dia. stoneware and cast-iron sewers, with manholes and other incidental works. Lemon and Blizard, consulting engineers, 3, Glen Eyre-rd., Southampton. Dep. £2 2s.

July 26.

Atherton U.D.C.—Supply and laying of dressing for road surfaces. Sur.

JULY 28.

Queensbury and Shelf U.D.C.—Asphalting roads, etc., Burn-side. S. Askew, clerk.

AUGUST 1.

Wigan R.D.C.—Providing and laying 1,200 yds. of 4in. dia. cast-iron main, the erection of a small pump-house, and other incidental works. J. Holding, Sur. Dep. £1 1s.

AUGUST 2.

Merionethshire Rivers Catchment Board.—Carrying out improvements to the main river, embankments and sluices. R. R. Jones, Clerk of the Board, Tremeivion, Talsarnau, Merioneth. Dep. £2 2s.

PUBLIC APPOINTMENTS.

JULY 21.

Bradford T.C.—Architectural Assistant; Clerk of Works and Builder's Clerk, City Architect.

***Isle of Wight C.C.**—Temporary Assistant to County Architect. P. E. White, Clerk, Newport.

JULY 25.

***Islington B.C.** Maintenance and requisitioning inspectors. Town Clerk.

JULY 31.

***Exeter Diocesan Dilapidations Board.**—Surveyorship (Exeter Archdeaconry). Secretary, 18, Cathedral Yard, Exeter.

AUGUST 26.

***Whitehaven B.C.**—Temporary Architectural Assistant. Town Clerk, Town Hall, Whitehaven.

AUGUST 1.

Cornwall C.C.—Temporary Senior Quantity Surveyor also Temporary Assistant Quantity Surveyor. County Architect, County Hall, Truro.

FEDERATED EMPLOYERS' INSURANCE ASSOCIATION LTD. ESTABLISHED 1904

The Leading Office for

Contract Guarantee Bonds

ALSO

FIRE

WORKMEN'S COMPENSATION

PUBLIC LIABILITY

MOTOR

ETC. ETC.

Head Office:

8 KING STREET, MANCHESTER, 2.

London Office:

23, Lawrence Lane, Cheapside, London, E.C.2.

TRADE NEWS

A Shipment of Electric Tools.

Messrs. Black and Decker inform us that a shipment of their portable electric tools was recently bound for an export market in a cargo vessel that was unfortunately subjected to enemy action. Badly crippled, but still afloat, the ship limped into port with her holds awash, her cargo damaged but still intact. This particular shipment of Black and Decker tools had been under water in the hold for many days, and, when finally unloaded, water cascaded from the cases. Naturally, when they were inspected by experts it was thought very improbable that the heart of the tools—the electric motors—would be of any use. This scepticism proved to be unfounded, we learn, for after the tools were dismantled, although water was still left in the gear cases, the armatures and fields when cleaned passed the same flash test (1,000 volts) as they are given in the final testing department of the company's works at Harmondsworth.

Hardwoods and Insect Attack.

The Department of Scientific and Industrial Research (Forest Products Research) has issued a Leaflet, No. 17, June, 1941, on "Pin-hole or Powder-post Damage," in which hints are given on how to distinguish two common types of insect attack in hardwoods. Copies are obtainable free from the Director at Princes Risborough.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st JUNE, 1941

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.
Abercarn	1/10½	1/5½
Aberdare	1/10½	1/5½
Abergavenny	1/10½	1/5½
Abingdon	1/9	1/4½
Accrington	1/10½	1/5½
Aldeburgh	1/7	1/3
Aldershot	1/9	1/4½
Alfreton	1/10½	1/5½
Alnwick	1/10	1/5½
Altrincham	1/10½	1/5½
Amble	1/10	1/5½
Amersham	1/9	1/4½
Ammanford	1/10½	1/5½
Andover	1/8½	1/4½
Ardingly	1/8½	1/4½
Arundel	1/8½	1/4½
Ascot	1/8½	1/4½
Ashby-de-la-Zouch	1/10½	1/5½
Ashford (Kent)	1/8½	1/4½
Ashford (Middlesex)	1/10½	1/5½
Ashington	1/10	1/5½
Ashtead	1/10½	1/5½
Ashton-under-Lyne	1/10½	1/5½
Aylesbury	1/8½	1/4½
Aylsham	1/7½	1/3½
Bagshot	1/8½	1/4½
Banbury	1/8½	1/4½
Barnsley	1/10½	1/5½
Barnstaple	1/8½	1/4½
Barrow-in-Furness	1/10½	1/5½
Barry	1/10½	1/5½
Basingstoke	1/8½	1/4½
Bath	1/10	1/5½
Batley	1/10½	1/5½
Beaconsfield	1/9	1/4½
Beccles	1/7	1/3
Bedford	1/10	1/5½
Berkhamsted	1/8½	1/4½
Berwick	1/10	1/5½
Beverley	1/10½	1/5½
Bexhill-on-Sea	1/9	1/4½
Bideford	1/8½	1/4½
Biggleswade	1/8½	1/4½
Billericay	1/8	1/3½
Birchington	1/8½	1/4½
Birkenhead	‡2/0½	¶
Birmingham	†1/10½	1/5½
Bishop Auckland	1/10½	1/5½
Bishop's Stortford	1/9½	1/5
Blackburn	1/10½	1/5½
Blackpool	1/10½	1/5½
Blyth	1/10½	1/5½
Bognor Regis	1/8½	1/4½
Bolton	1/10½	1/5½
Bournemouth	1/9½	1/5
Bracknell	1/8½	1/4½
Bradford	1/10½	1/5½
Bradford-on-Avon	1/7½	1/3½
Braintree	1/8½	1/4½
Brentwood	1/10	1/5½
Bridgwater	1/9	1/4½
Bridlington	1/10	1/5½
Brighouse	1/10½	1/5½
Brighton	1/9½	1/5
Bristol	1/10½	1/5½
Broadstairs	1/8½	1/4½
Bromsgrove	1/10	1/5½
Buckley	1/10½	1/5½
Bungay	1/6½	1/2½
Burnham-on-Crouch	1/7	1/3
Burnley	1/10½	1/5½
Burnham	1/10½	1/5½
Burton-on-Trent	1/10½	1/5½
Bury	1/10½	1/5½
Bury St. Edmunds	1/8	1/3½
Buxton	1/10	1/5½
Byfleet	1/9	1/4½
Cambridge	1/10½	1/5½
Canterbury	1/8½	1/4½
Cardiff	1/10½	1/5½
Carlisle	1/10½	1/5½
Carnforth	1/10½	1/5½
Castleford	1/10½	1/5½
Caterham	1/10½	1/5½
Chard	1/7½	1/3½
Chatham	1/9½	1/5
Chelmsford	1/10	1/5½
Cheltenham	1/9½	1/5
Chepstow	1/10	1/5½
Chertsey	1/9½	1/5
Chester	1/10½	1/5½
Chesterfield	1/10½	1/5½
Chichester	1/8½	1/4½
Chorley	1/10½	1/5½
Cirencester	1/8	1/3½
Clacton	1/8½	1/4½
Clevedon	1/10½	1/5½
Clitheroe	1/10½	1/5½
Cobham (Surrey)	1/9½	1/5
Colchester	1/10	1/5½
Colwyn Bay	1/9½	1/5
Congleton	1/10	1/5½
Coventry	1/10½	1/5½
Cranbrook	1/8½	1/4½
Cranleigh	1/8½	1/4½
Crawley	1/8½	1/4½
Crewe	1/10	1/5½
Cromer	1/7½	1/3½
Crowborough	1/8½	1/4½
Cuckfield	1/8½	1/4½
Darlington	1/10½	1/5½
Darwen	1/10½	1/5½
Daventry	1/9	1/4½
Deal	1/8½	1/4½
Denbigh	1/9½	1/5
Derby	1/10½	1/5½
Devizes	1/7½	1/3½
Dewsbury	1/10½	1/5½
Didcot	1/8½	1/4½
Diss	1/7	1/3
Doncaster	1/10½	1/5½
Dorchester	1/8	1/3½
Dorking	1/9	1/4½
Dover	1/8½	1/4½
Dovercourt	1/8½	1/4½
Driffield	1/9	1/4½
Droitwich	1/10	1/5½
Dudley	1/10½	1/5½
Dunstable	1/9	1/4½
Durham City	1/10½	1/5½
Eastbourne	1/9½	1/5
E. Glam. (Mon. Val.)	1/10½	1/5½
East Grinstead	1/8½	1/4½
Edenbridge	1/8½	1/4½
Ely	1/7½	1/3½
Epping	1/10½	1/5½
Exeter	1/10	1/5½
Exmouth	1/9	1/4½
Fakenham	1/7½	1/3½
Falmouth	1/9	1/4½
Fareham	1/9½	1/5
Faversham	1/8½	1/4½
Felixstowe	1/9½	1/5
Filey	1/9	1/4½
Fleetwood	1/10½	1/5½
Flint	1/10½	1/5½
Folkestone	1/8½	1/4½
Frinton-on-Sea	1/8½	1/4½
Frome	1/7½	1/3½
Gainsborough	1/9½	1/5
Gateshead	1/10½	1/5½
Gillingham (Kent)	1/9½	1/5
Glossop	1/10½	1/5½
Gloucester	1/10	1/5½
Godalming	1/8½	1/4½
Goole	1/10½	1/5½
Gosport	1/10	1/5½
Grantham	1/9½	1/5
Gravesend	1/10	1/5½
Great Yarmouth	1/8½	1/4½
Grimsby	1/10½	1/5½
Guildford	1/8½	1/4½
Guisborough	1/9	1/4½
Halifax	1/10½	1/5½
Hanley	1/10½	1/5½
Harpenden	1/9½	1/5
Harrogate	1/10½	1/5½
Hartlepools	1/10½	1/5½
Harwich	1/8½	1/4½
Haslemere	1/8½	1/4½
Hastings	1/8½	1/4½
Hatfield	1/10	1/5½
Haywards Heath	1/8½	1/4½
Redneasford	1/10	1/5½
Hemel Hempstead	1/9½	1/5
Henley-on-Thames	1/8½	1/4½
Hereford	1/8½	1/4½
Herne Bay	1/8½	1/4½
Hertford	1/10	1/5½
Heysham	1/10½	1/5½
Hitchin	1/9½	1/5
Hoddesdon	1/10	1/5½
Holt (Norfolk)	1/7	1/3
Horley	1/8½	1/4½
Horsham	1/8½	1/4½
Horwich	1/10½	1/5½
Huddersfield	1/10½	1/5½
Hull	1/10½	1/5½
Hunstanton	1/7½	1/3½
Huntingdon	1/8	1/3½
Ilfracombe	1/8½	1/4
Ingatestone	1/9	1/4½
Ipswich	1/10	1/5½
Isle of Thanet	1/8½	1/4½
Isle of Wight	1/8	1/3½
Keighley	1/10½	1/5½
Kenilworth	1/10½	1/5½
Kettering	1/10½	1/5½
Kidderminster	1/10	1/5½
King's Lynn	1/8½	1/4½
Kirkham	1/10½	1/5½
Knowle	1/10	1/5½
Lancaster	1/10½	1/5½
Leamington	1/10½	1/5½
Leatherhead	1/9½	1/5
Leeds	1/10½	1/5½
Leicester	1/10½	1/5½
Leighton Buzzard	1/7½	1/3½
Letchworth	1/9½	1/5
Lewes	1/8½	1/4½
Lichfield	1/9½	1/5
Lincoln	1/10½	1/5½
Littlehampton	1/8½	1/4½
Liverpool	‡2/0½	¶
Llandudno	1/9½	1/5
Llanelly	1/10½	1/5½
London—		
12m. radius	*2/0	1/6½
12-15 m. radius	*1/11½	1/6½
Long Eaton	1/10½	1/5½
Longton	1/10½	1/5½
Loughborough	1/10½	1/5½
Louth	1/9	1/4½
Lowestoft	1/8½	1/4½
Luton	1/10	1/5½
Macclesfield	1/10	1/5½
Maidenhead	1/9½	1/5
Maidstone	1/9	1/4½
Malvern	1/9	1/4½
Manchester	1/10½	1/5½
Manningtree	1/7½	1/3½
Mansfield	1/10½	1/5½
March	1/7½	1/3½
Margate	1/8½	1/4½
Market Harborough	1/9½	1/5
Matlock	1/9	1/4½
Melton Constable	1/7	1/3
Melton Mowbray	1/9½	1/5
Merthyr	1/10½	1/5½
Middlesbrough	1/10½	1/5½
Middleton	1/10½	1/5½
Middlewich	1/10	1/5½
Milford Haven	1/9	1/4½
Morecambe	1/10½	1/5½
Morley	1/10½	1/5½
Mundesley	1/7½	1/3½
Nantwich	1/10	1/5½
Nelson	1/10½	1/5½
Newark-on-Trent	1/10	1/5½
Newbury	1/8½	1/4½
Newcastle-on-Tyne	1/10½	1/5½
Newcastle-u.-Lyme	1/10½	1/5½
New Forest	1/8½	1/4½
Newmarket	1/8½	1/4½
Newport, Mon.	1/10½	1/5½
Newport Pagnell	1/8½	1/4½
Northampton	1/10½	1/5½
Norwich	1/10½	1/5½
Nottingham	1/10½	1/5½
Nuneaton	1/10½	1/5½
Oakham	1/9	1/4½
Oldham	1/10½	1/5½
Ormskirk	1/10½	1/5½
Oxford	1/10	1/5½
Oxted	1/9	1/4½
Paignton	1/10	1/5½
Peterborough	1/10	1/5½
Plymouth	1/10½	1/5½
Pontefract	1/10½	1/5½
Pontypridd	1/10½	1/5½
Port Talbot	1/10½	1/5½
Portsmouth	1/10	1/5½
Preston	1/10½	1/5½
Pulborough	1/8½	1/4½
Ramsgate	1/8½	1/4½
Reading	1/10	1/5½
Redditch	1/10	1/5½
Redhill	1/9	1/4½
Ripon	1/9	1/4½
Rochdale	1/10½	1/5½
Rochester	1/9½	1/5
Rugby	1/10½	1/5½
St. Albans	1/10	1/5½
St. Helens	1/10½	1/5½
St. Neots	1/8	1/3½
Saffron Walden	1/7½	1/3½
Salisbury City	1/8	1/3½
Salisbury Plain	1/9½	1/5
Sawbridgeworth	1/9	1/4½
Saxmundham	1/7	1/3
Scarborough	1/10	1/5½
Scunthorpe	1/10½	1/5½
Selby	1/10½	1/5½
Sevenoaks	1/9	1/4½
Sheerness	1/8½	1/4½
Sheffield	1/10½	1/5½
Shipley	1/10½	1/5½
Shoeburyness	1/10	1/5½
Shoreham	1/9½	1/5
Shrewsbury	1/10	1/5½
Sittingbourne	1/8½	1/4½
Skegness	1/9½	1/5
Sleaford	1/9	1/4½
Slough	1/9½	1/5
Southampton	1/10	1/5½
Southend-on-Sea	1/10	1/5½
Southport	1/10½	1/5½
South Shields	1/10½	1/5½
Spalding	1/8½	1/4½
Stafford	1/10	1/5½
Staines	1/9½	1/5
Stamford	1/9½	1/5
Stevenage	1/9½	1/5
Stockport	1/10½	1/5½
Stockton-on-Tees	1/10½	1/5½
Stoke-on-Trent	1/10½	1/5½
Stourbridge	1/10½	1/5½
Stourport	1/10	1/5½
Stowmarket	1/7½	1/3½
Stratford-on-Avon	1/9½	1/5
Stroud	1/9½	1/5
Sunderland	1/10½	1/5½
Sutton Coldfield	1/10½	1/5½
Swaffham	1/7	1/3
Swanage	1/8½	1/4½
Swansea	1/10½	1/5½
Swindon	1/9	1/4½
Tamworth	1/10	1/5½
Taunton	1/9	1/4½
Tenterden	1/8½	1/4½
Thames Haven	1/10½	1/5½
Thetford	1/8	1/3½
Thorpe Bay	1/10	1/5½
Todmorden	1/10½	1/5½
Tonbridge	1/9	1/4½
Torquay	1/10	1/5½
Totnes	1/8½	1/4½
Trowbridge	1/7½	1/3½
Truro	1/8	1/3½
Tunbridge Wells	1/9	1/4½
Uppingham	1/9	1/4½
Uttoxeter	1/9	1/4½
Wakefield	1/10½	1/5½
Walsall	1/10½	1/5½
Walsden	1/10½	1/5½
Walton-on-Naze	1/8½	1/4½
Ware	1/10	1/5½
Warminster	1/7½	1/3½
Warrington	1/10½	1/5½
Warwick	1/10½	1/5½
Wellington R.D.	1/10	1/5½
Welwyn	1/9½	1/5
Welwyn Gar. City	1/10½	1/5½
Wells (Norfolk)	1/7	1/3
West Bromwich	1/10½	1/5½
Westcliff-on-Sea	1/10	1/5½
Weston-super-Mare	1/9½	1/5
Weybridge	1/9½	1/5
Weymouth	1/8½	1/4½
Whitby	1/9½	1/5
Whitstable	1/8½	1/4½
Widnes	1/10½	1/5½
Wigan	1/10½	1/5½
Wigton	1/9	1/4½
Willington	1/10½	1/5½
Wilmslow	1/10½	1/5½
Winchester	1/9	1/4½
Windermere	1/9	1/4½
Windsor	1/9½	1/5
Wisbech	1/8	1/3½
Witham	1/8½	1/4½
Woking	1/9	1/4½
Wokingham	1/8½	1/4½
Wolverhampton	1/10½	1/5½
Woodbridge	1/8	1/3½
Worcester	1/10	1/5½
Workington	1/9	1/4½
Worksop	1/10	1/5½
Worthing	1/8½	1/4½
Wrexham	1/10	1/5½
Wroxham	1/8	1/3½
Wycombe	1/8½	1/5
Wymondham	1/7½	1/3½
Yeovil	1/9	1/4½
York	1/10½	1/5½

* Painters 1d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 2/1.

¶ Tradesman's Labourers, 1/6½. Navvies and General Labourers, 1/6½.

§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.

NOTE.—Carpenters and Joiners in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.

For Building Trade Wages in Scotland, see page 66.

PRICES CURRENT OF MATERIALS*

Note: Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry.
The prices of soft woods are for cash on delivery.
At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

The price for Stock Bricks has been altered to minimum price at works for full lorry loads. Sittingbourne district. A quotation for cartage should be obtained as the haulage question is difficult.

		£ s. d.
First Hard Stocks	per 1,000	£4 5 6
Second Hard Stocks	"	3 18 6
Mild Stocks	"	3 5 6
Single Rough Stocks	"	2 19 6
Third Common Stocks	"	2 10 0

2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.	King's Cross per 1,000	To sites in W.C. Station per 1,000	District. per 1,000
	s. d.	s. d.	s. d.
Pressed	51 9	58 3	
Keyed	53 9	60 3	
Single Bullnose	71 9	78 3	
Rustics	71 9	78 3	
Whites	72 3	78 3	

	£ s. d.
White Midhurst Best selected (delivered London site)	5 10 0
Best blue Pressed Staffs. (London Stns.)	10 2 0
Do. Bullnose (London Stns.)	10 12 0
Blue Wire Cuts (London Stns.)	8 19 6

Best Stourbridge Fire Brick (London Stns.):—
2½ in. ..... 10 0 0 3 in. 12. 0 0

GLAZED BRICKS. (London Stns.)

Best White Ivory and Salt Glazed Stretcher	D'bie Str'tch'rs	36 10 0
	D'bie Headers	23 10 0
	23 0 0 One side&two ends	37 10 0
Headers	27 10 0 Two sides&one end	38 10 0
Quoins, Bullnose and 4½ in. Flats	Splays and Squints	36 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

2" per yd. sup.	2 3	3" per yd. sup.	2 9
2½" " "	2 6	4" " "	3 1

CLINKER CONCRETE.

2" per yd. sup.	1 9	3" per yd. sup.	2 6
2½" " "	2 1	4" " "	3 4

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 6
Size 12 x 9 x 2½ "	2 9
Size 12 x 9 x 3" "	3 3
Size 12 x 9 x 4" "	3 7

Plus 2d. for smooth one side, and 4d. for smooth both sides.

Delivered: Free on site London area.

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" x 4"	3 9

Per yard super d/d. Free on site, London.

SAND.

Thames Ballast	9 6 per yd.	delivered 2 miles radius Paddington.
Pit Ballast	9 0 " "	
Pit Sand	11 6 " "	
Washed Sand	13 0 " "	
¼ in. Shingle	10 0 " "	
¾ in. Broken Brick	15 6 " "	
Pan Breeze	9 6 " "	

CEMENT.

Best British Portland Cement. Standard Specification.

delivered London Area.	£ s. d.
4 ton loads and upwards site. ..... Per ton	2 9 6
1 ton to 4 tons site	2 12 6
Alongside Vauxhall in 80 ton lots	2 7 0
"Ferrocrete" Rapid Hardening Cement—	
4 ton loads and upwards site	2 15 6
1 ton to 4 tons site	2 18 6
Alongside Vauxhall in 80 ton lots	2 13 0

Stored in Reserved Bins at works. 1/6 per ton extra.

"Aquacrete" Water Repellent, "Blue Circle" cement, 30/- per ton extra on ordinary "Blue Circle" prices.

"Colorcrete" Nos. 1 and 2. Coloured Rapid Hardening Portland Cement 3 19 6

"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.

"Snowcrete" White Portland Cement 10 5 0

"417" Cement (Ultra Rapid Hardening) Delivered site London Area in 4 ton lots and upwards ..... per ton 3 9 6

Plus packages at current prices.

Super Cement (Waterproof), *bags extra* 3 19 6

NOTE.—Paper bags will be charged at the rate of 6/- nett per ton. Jute sacks charged 1s. 9d. nett each and 1/6 nett each allowed if returned to works within two weeks, in good condition.

Carriage will be paid by makers on returned empty jute sacks.

Roman Cement	£8 0	Keene's Cement, White	£7 0 0
Parian Cement	7 0	" Pink	6 10 0

Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 0 0	Sirapite, Coarse	4 5 6
" White	4 7 6	" Finish	4 13 6
Pioneer	4 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue Lias Lime	2 0 6	Grey Stone Lime	2 14 6
		Chalk Lime	2 14 6
Granite Chippings	1 15 0	Hair per cwt.	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12 6 in 6-ton lots at railway depot.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	3 3½
BERE STONE—RANDOM BLOCK— Free on rail at Seaton Station per ft. cube	2 2
Delivered free on rail Nine Elms, S.R. "	2 1½
Selected approximate size one way, 1d. per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 7
Do. do. delivered on road waggons as above stations, per ft. cube	4 7
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over F.ft.cb.	13 2
Sawn two sides	26 11
Sawn three or four sides	31 11
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 20 ft. super) per ft.super	5 6
6 in. rubbed two sides, ditto "	6 3
3 in. sawn two sides slabs (random sizes) "	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) "	1 8½
1½ in. to 2 in. ditto "	1 4½
HARD YORK— Delivered at any Goods Station, London.	
Scrappied random blocks. per ft.cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) per ft.super	5 7½
6 in. rubbed two sides, ditto "	6 9
4 in. sawn two sides slabs (random sizes) "	3 5
3 in. ditto ditto "	2 8
2 in. self-faced random flags per yd.super	8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded, 8s. 6d. Small section cills and copings, 11s.

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	Foot cube. £ s. d.
Dry English Wainscot Billets	16 0 to 0 18 0
Dry Slavonian Billet Wainscot	17 0 to 1 0 0
Dry Cuba Mahogany logs	21 0 to 1 4 0
Square-edged Honduras Mahogany	0 16 6
Log Cut Honduras Mahogany	0 17 6
American Figured Oak	0 13 0
American Plain Oak	0 12 6
Jap. Figured Oak	0 13 0
Jap. Plain Oak	0 12 6
Teak	0 15 6
American Whitewood	0 12 6
African Whitewood	0 8 0
African Mahogany	0 11 0
Australian Walnut	0 10 0
Australian Silky Oak	0 12 6
Best Scotch glue per cwt.	5 0 0
Liquid glue, per gallon	1 2 0

Having Secured the Contract— What about the Steel Scaffolding?

TUBULAR

—S & C—

SCAFFOLDING

For the lowest Prices apply to the Oldest Firm in the Scaffolding Trade.

STEPHENS & CARTER LTD.

The British Steel Scaffolding Co.

731-761, HARROW RD., N.W.10.

Telephone No. Ladbroke 1191 (5 lines).

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE.

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes, 2 in. by 3 in. to 4 in. by 11 in.	43 10 0	53 0 0

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	67 10 0

	Per square. s. d.
1 in. plain edge flooring	53 0
1¼ in. ditto	66 6
1 in. tongued and grooved	63 0
1¼ in. ditto	66 6

MATCHING.

	Per square. s. d.
½ in.	37 6
¾ in.	42 0
1 in.	45 0

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0
22 by 12	37 17 6	18 by 9	22 12 6
22 by 11	34 2 6	16 by 10	21 10 0
20 by 12	33 0 0	16 by 8	16 12 6
20 by 10	30 5 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons ..... Per 1,000 f.o.r. London

	£ s. d.
Best machine-made tiles from Brierley or Staffordshire district	£4 17 6
Ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles (per dozen) Hand-made	0 11 6
Machine-made	0 11 0

METALS.

	£ s. d.
JOISTS, GIRDERS, &c., TO LONDON STATION PER TON— R.S. Joists, cut and fitted	£23 10 0
Plain Compound Girders	25 0 0
" Stanchions	27 10 0
In Roof Work	32 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	23 5 0	⅜ in. to ½ in.	20 15 0
⅝ in.	21 5 0	⅝ in. to 2½ in.	20 5 0

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½% gross.

Fittings.

Tubes.	Tubulars. 10/17		Flanges.		
¼"/⅜"	½"/¾"	19/24	¼"/⅜"	½"/¾"	1"/2"
%	%	%	%	%	%
Light weight	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv. lightweight	40½	—	36½	39½	48½
Galv. heavyweight	31	31	31	29½	41

Tubes and tubulars sizes ¼"/1" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoices. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS.—London Prices ex Works. per yd. in 6 ft. lengths.

	Gutters.	Nozzels.	Stop ends.
3 in.	1/5	1/1½	4½d.
3½ in.	1/6½	1/3½	4½d.
4 in.	1/6½	1/5	6½d.
4½ in.	1/7½	1/7½	8d.
5 in.	1/11	1/9	8½d.

O.G. GUTTERS.

3 in.	1/9½	1/6½	4½d.
3½ in.	2/0½	1/6½	6½d.
4 in.	2/0½	1/7½	7½d.
4½ in.	2/1½	1/10½	8½d.
5 in.	2/7	2/1½	9½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Stock angles.	Branches.
2 in.	2/1½	1/5	2/1
2½ in.	2/2½	1/7½	2/5½
3 in.	2/7½	2/0½	3/0½
3½ in.	3/1	2/5	3/6
4 in.	3/7	2/10½	4/2½

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent. 2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe	Bends.	Branches.
2 in.	3/6½	2/5½	3/0½
2½ in.	4/2½	2/9	3/9½
3 in.	4/6½	3/0½	4/6
3½ in.	4/7½	3/9½	5/3
4 in.	5/0½	4/2½	6/0½

L.C.C. COATED DRAIN PIPE.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	4/3	9/11
cwt. qr. lbs.			
4 in. 1 1 20	7/11	7/1	12/8
5 in. 1 2 22	9/7	12/3	19/3
6 in. 2 0 6	11/3	14/8	25/6

Gaskin, 75/- per cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st JUNE, 1941

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors]

	Crafts-men.	Lab-ourers.
Abercarn	1/10½	1/5½
Aberdare	1/10½	1/5½
Abergavenny	1/10½	1/5½
Abingdon	1/9	1/4½
Accrington	1/10½	1/5½
Aldeburgh	1/7	1/3
Aldershot	1/9	1/4½
Alfreton	1/10½	1/5½
Alnwick	1/10	1/5½
Altrincham	1/10½	1/5½
Amble	1/10	1/5½
Amersham	1/9	1/4½
Ammanford	1/10½	1/5½
Andover	1/8½	1/4½
Ardingly	1/8½	1/4½
Arundel	1/8½	1/4½
Ascot	1/8½	1/4½
Ashby-de-la-Zouch	1/10½	1/5½
Ashford (Kent)	1/8½	1/4½
Ashford (Middlesex)	1/10½	1/5½
Ashington	1/10	1/5½
Ashtead	1/10½	1/5½
Ashton-under-Lyne	1/10½	1/5½
Aylesbury	1/8½	1/4½
Aylsham	1/7½	1/3½
Bagshot	1/8½	1/4½
Banbury	1/8½	1/4½
Barnsley	1/10½	1/5½
Barnstaple	1/8½	1/4½
Barrow-in-Furness	1/10½	1/5½
Barry	1/10½	1/5½
Basingstoke	1/8½	1/4½
Bath	1/10	1/5½
Batley	1/10½	1/5½
Beaconsfield	1/9	1/4½
Beccles	1/7	1/3
Bedford	1/10	1/5½
Berkhamsted	1/8½	1/4½
Berwick	1/10	1/5½
Beverley	1/10½	1/5½
Bexhill-on-Sea	1/9	1/4½
Bideford	1/8½	1/4½
Biggleswade	1/8½	1/4½
Billericay	1/8	1/3½
Birchington	1/8½	1/4½
Birkenhead	‡§2/0½	¶
Birmingham	†1/10½	1/5½
Bishop Auckland	1/10½	1/5½
Bishop's Stortford	1/9½	1/5
Blackburn	1/10½	1/5½
Blackpool	1/10½	1/5½
Blyth	1/10½	1/5½
Bognor Regis	1/8½	1/4½
Bolton	1/10½	1/5½
Bournemouth	1/9½	1/5
Bracknell	1/8½	1/4½
Bradford	1/10½	1/5½
Bradford-on-Avon	1/7½	1/3½
Braintree	1/8½	1/4½
Brentwood	1/10	1/5½
Bridgwater	1/9	1/4½
Bridlington	1/10	1/5½
Brighouse	1/10½	1/5½
Brighton	1/9½	1/5
Bristol	1/10½	1/5½
Broadstairs	1/8½	1/4½
Bromsgrove	1/10	1/5½
Buckley	1/10½	1/5½
Bungay	1/6½	1/2½
Burnham-on-Crouch	1/7	1/3
Burnley	1/10½	1/5½
Bursiem	1/10½	1/5½
Burton-on-Trent	1/10½	1/5½
Bury	1/10½	1/5½
Bury St. Edmunds	1/8	1/3½
Buxton	1/10	1/5½
Byfleet	1/9	1/4½
Cambridge	1/10½	1/5½
Canterbury	1/8½	1/4½
Cardiff	1/10½	1/5½
Carlisle	1/10½	1/5½
Carnforth	1/10½	1/5½
Castleford	1/10½	1/5½
Caterham	1/10½	1/5½
Chard	1/7½	1/3½
Chatham	1/9½	1/5
Chelmsford	1/10	1/5½
Cheltenham	1/9½	1/5
Chepstow	1/10	1/5½
Chertsey	1/9½	1/5
Chester	1/10½	1/5½
Chesterfield	1/10½	1/5½
Chichester	1/8½	1/4½
Chorley	1/10½	1/5½
Cirencester	1/8	1/3½
Clacton	1/8½	1/4½
Cleveleys	1/10½	1/5½
Clitheroe	1/10½	1/5½
Cobham (Surrey)	1/9½	1/5
Colchester	1/10	1/5½
Colwyn Bay	1/9½	1/5
Congleton	1/10	1/5½
Coventry	1/10½	1/5½
Cranbrook	1/8½	1/4½
Cranleigh	1/8½	1/4½
Crawley	1/8½	1/4½
Crewe	1/10	1/5½
Cromer	1/7½	1/3½
Crowborough	1/8½	1/4½
Cuckfield	1/8½	1/4½
Darlington	1/10½	1/5½
Darwen	1/10½	1/5½
Daventry	1/9	1/4½
Deal	1/8½	1/4½
Denbigh	1/9½	1/5
Derby	1/10½	1/5½
Devizes	1/7½	1/3½
Dewsbury	1/10½	1/5½
Didcot	1/8½	1/4½
Diss	1/7	1/3
Doncaster	1/10½	1/5½
Dorchester	1/8	1/3½
Dorking	1/9	1/4½
Dover	1/8½	1/4½
Dovercourt	1/8½	1/4½
Driffield	1/9	1/4½
Droitwich	1/10	1/5½
Dudley	1/10½	1/5½
Dunstable	1/9	1/4½
Durham City	1/10½	1/5½
Eastbourne	1/9½	1/5
E. Glam. (Mon. Val.)	1/10½	1/5½
East Grinstead	1/8½	1/4½
Edenbridge	1/8½	1/4½
Ely	1/7½	1/3½
Epping	1/10½	1/5½
Exeter	1/10	1/5½
Exmouth	1/9	1/4½
Fakenham	1/7½	1/3½
Falmouth	1/9	1/4½
Fareham	1/9½	1/5
Faversham	1/8½	1/4½
Felixstowe	1/9½	1/5
Filey	1/9	1/4½
Fleetwood	1/10½	1/5½
Flint	1/10½	1/5½
Folkestone	1/8½	1/4½
Frinton-on-Sea	1/8½	1/4½
Frome	1/7½	1/3½
Gainsborough	1/9½	1/5
Gateshead	1/10½	1/5½
Gillingham (Kent)	1/9½	1/5
Glossop	1/10½	1/5½
Gloucester	1/10	1/5½
Godalming	1/8½	1/4½
Goole	1/10½	1/5½
Gosport	1/10	1/5½
Grantham	1/9½	1/5
Gravesend	1/10	1/5½
Great Yarmouth	1/8½	1/4½
Grimsby	1/10½	1/5½
Guildford	1/8½	1/4½
Guisborough	1/9	1/4½
Halifax	1/10½	1/5½
Hanley	1/10½	1/5½
Harpenden	1/9½	1/5
Harrogate	1/10½	1/5½
Hartlepools	1/10½	1/5½
Harwich	1/8½	1/4½
Haslemere	1/8½	1/4½
Hastings	1/8½	1/4½
Hatfield	1/10	1/5½
Haywards Heath	1/8½	1/4½
Hednesford	1/10	1/5½
Hemel Hempstead	1/9½	1/5
Henley-on-Thames	1/8½	1/4½
Hereford	1/8½	1/4½
Herne Bay	1/8½	1/4½
Hertford	1/10	1/5½
Heysham	1/10½	1/5½
Hitchin	1/9½	1/5
Hoddesdon	1/10	1/5½
Holt (Norfolk)	1/7	1/3
Horley	1/8½	1/4½
Horsham	1/8½	1/4½
Horwich	1/10½	1/5½
Huddersfield	1/10½	1/5½
Hull	1/10½	1/5½
Hunstanton	1/7½	1/3½
Huntingdon	1/8	1/3½
Ilfracombe	1/8½	1/4
Ingatestone	1/9	1/4½
Ipswich	1/10	1/5½
Isle of Thanet	1/8½	1/4½
Isle of Wight	1/8	1/3½
Keighley	1/10½	1/5½
Kenilworth	1/10½	1/5½
Kettering	1/10½	1/5½
Kidderminster	1/10	1/5½
King's Lynn	1/8½	1/4½
Kirkham	1/10½	1/5½
Knowle	1/10	1/5½
Lancaster	1/10½	1/5½
Leamington	1/10½	1/5½
Leatherhead	1/9½	1/5
Leeds	1/10½	1/5½
Leicester	1/10½	1/5½
Leighton Buzzard	1/7½	1/3½
Letchworth	1/9½	1/5
Lewes	1/8½	1/4½
Lichfield	1/9½	1/5
Lincoln	1/10½	1/5½
Littlehampton	1/8½	1/4½
Liverpool	‡§2/0½	¶
Llandudno	1/9½	1/5
Llanelly	1/10½	1/5½
London—		
12m. radius	*2/0	1/6½
12-15 m. radius	*1/11½	1/6½
Long Eaton	1/10½	1/5½
Longton	1/10½	1/5½
Loughborough	1/10½	1/5½
Louth	1/9	1/4½
Lowestoft	1/8½	1/4½
Luton	1/10	1/5½
Macclesfield	1/10	1/5½
Maidenhead	1/9½	1/5
Maidstone	1/9	1/4½
Malvern	1/9	1/4½
Manchester	1/10½	1/5½
Manningtree	1/7½	1/3½
Mansfield	1/10½	1/5½
March	1/7½	1/3½
Margate	1/8½	1/4½
Market Harborough	1/9½	1/5
Matlock	1/9	1/4½
Melton Constable	1/7	1/3
Melton Mowbray	1/9½	1/5
Merthyr	1/10½	1/5½
Middlesbrough	1/10½	1/5½
Middleton	1/10½	1/5½
Middlewich	1/10	1/5½
Milford Haven	1/9	1/4½
Morecambe	1/10½	1/5½
Morley	1/10½	1/5½
Mundesley	1/7½	1/3½
Nantwich	1/10	1/5½
Nelson	1/10½	1/5½
Newark-on-Trent	1/10	1/5½
Newbury	1/8½	1/4½
Newcastle-on-Tyne	1/10½	1/5½
Newcastle-u.-Lyme	1/10½	1/5½
New Forest	1/8½	1/4½
Newmarket	1/8½	1/4½
Newport, Mon.	1/10½	1/5½
Newport Pagnell	1/8½	1/4½
Northampton	1/10½	1/5½
Norwich	1/10½	1/5½
Nottingham	1/10½	1/5½
Nuneaton	1/10½	1/5½
Oakham	1/9	1/4½
Oldham	1/10½	1/5½
Ormskirk	1/10½	1/5½
Oxford	1/10	1/5½
Oxted	1/9	1/4½
Paignton	1/10	1/5½
Peterborough	1/10	1/5½
Plymouth	1/10½	1/5½
Pontefract	1/10½	1/5½
Pontypridd	1/10½	1/5½
Port Talbot	1/10½	1/5½
Portsmouth	1/10	1/5½
Preston	1/10½	1/5½
Pulborough	1/8½	1/4½
Ramsgate	1/8½	1/4½
Reading	1/10	1/5½
Redditch	1/10	1/5½
Redhill	1/9	1/4½
Ripon	1/9	1/4½
Rochdale	1/10½	1/5½
Rochester	1/9½	1/5
Rugby	1/10½	1/5½
St. Albans	1/10	1/5½
St. Helens	1/10½	1/5½
St. Neots	1/8	1/3½
Saffron Walden	1/7½	1/3½
Salisbury City	1/8	1/3½
Salisbury Plain	1/9½	1/5
Sawbridgeworth	1/9	1/4½
Saxmundham	1/7	1/3
Scarborough	1/10	1/5½
Scunthorpe	1/10½	1/5½
Selby	1/10½	1/5½
Sevenoaks	1/9	1/4½
Sheerness	1/8½	1/4½
Sheffield	1/10½	1/5½
Shipley	1/10½	1/5½
Shoeburyness	1/10	1/5½
Shoreham	1/9½	1/5
Shrewsbury	1/10	1/5½
Sittingbourne	1/8½	1/4½
Skegness	1/9½	1/5
Sleaford	1/9	1/4½
Slough	1/9½	1/5
Southampton	1/10	1/5½
Southend-on-Sea	1/10	1/5½
Southport	1/10½	1/5½
South Shields	1/10½	1/5½
Spalding	1/8½	1/4½
Stafford	1/10	1/5½
Staines	1/9½	1/5
Stamford	1/9½	1/5
Stevenage	1/9½	1/5
Stockport	1/10½	1/5½
Stockton-on-Tees	1/10½	1/5½
Stoke-on-Trent	1/10½	1/5½
Stourbridge	1/10½	1/5½
Stourport	1/10	1/5½
Stowmarket	1/7½	1/3½
Stratford-on-Avon	1/9½	1/5
Stroud	1/9½	1/5
Sunderland	1/10½	1/5½
Sutton Coldfield	1/10½	1/5½
Swaffham	1/7	1/3
Swanage	1/8½	1/4½
Swansea	1/10½	1/5½
Swindon	1/9	1/4½
Tamworth	1/10	1/5½
Taunton	1/9	1/4½
Tenterden	1/8½	1/4½
Thames Haven	1/10½	1/5½
Thetford	1/8	1/3½
Thorpe Bay	1/10	1/5½
Todmorden	1/10½	1/5½
Tonbridge	1/9	1/4½
Torquay	1/10	1/5½
Totnes	1/8½	1/4½
Trowbridge	1/7½	1/3½
Truro	1/8	1/3½
Tunbridge Wells	1/9	1/4½
Uppingham	1/9	1/4½
Uttoxeter	1/9	1/4½
Wakefield	1/10½	1/5½
Walsall	1/10½	1/5½
Walsden	1/10½	1/5½
Walton-on-Naze	1/8½	1/4½
Ware	1/10	1/5½
Warminster	1/7½	1/3½
Warrington	1/10½	1/5½
Warwick	1/10½	1/5½
Wellington R.D.	1/10	1/5½
Welwyn	1/9½	1/5
Welwyn Gar. City	1/10½	1/5½
Wells (Norfolk)	1/7	1/3
West Bromwich	1/10½	1/5½
Westcliff-on-Sea	1/10	1/5½
Weston-super-Mare	1/9½	1/5
Weybridge	1/9½	1/5
Weymouth	1/8½	1/4½
Whitby	1/9½	1/5
Whitstable	1/8½	1/4½
Widnes	1/10½	1/5½
Wigan	1/10½	1/5½
Wigton	1/9	1/4½
Willington	1/10½	1/5½
Wilmslow	1/10½	1/5½
Winchester	1/9	1/4½
Windermere	1/9	1/4½
Windsor	1/9½	1/5
Wisbech	1/8	1/3½
Witham	1/8½	1/4½
Woking	1/9	1/4½
Wokingham	1/8½	1/4½
Wolverhampton	1/10½	1/5½
Woodbridge	1/8	1/3½
Worcester	1/10	1/5½
Workington	1/9	1/4½
Worksop	1/10	1/5½
Worthing	1/8½	1/4½
Wrexham	1/10	1/5½
Wroxham	1/8	1/3½
Wycombe	1/8½	1/5
Wymondham	1/7½	1 3½
Yeovil	1/9	1/4½
York	1/10½	1/5½

* Painters 1d. less than other Craftsmen. † Plus 2d. per working day. ‡ Plasterers 2/1.
¶ Tradesman's Labourers, 1/6½. Navvies and General Labourers, 1/6½.
§ Joiners, Plumbers, Bricklayers, Tilers and Masons receive 2/- per week or 4d. per day Tool Money.
NOTE.—Carpenters and Joiners in all Towns and Districts (other than Birkenhead and Liverpool) receive 2d. per day Tool Allowance.
For Building Trade Wages in Scotland, see page 66.

PRICES CURRENT OF MATERIALS*

Note: Owing to the exceptional circumstances which prevail at the present time prices of materials should be confirmed by inquiry. The prices of soft woods are for cash on delivery.

At present linseed oil and genuine spirits of turpentine can only be supplied in cans in small quantities.

BRICKS, &c.

The price for Stock Bricks has been altered to minimum price at works for full lorry loads. Sittingbourne district. A quotation for cartage should be obtained as the haulage question is difficult.

	£ s. d.
First Hard Stocks ..... per 1,000	£4 5 6
Second Hard Stocks ..... "	3 18 6
Mild Stocks ..... "	3 5 6
Single Rough Stocks ..... "	2 19 6
Third Common Stocks ..... "	2 10 0

2½ in. Phorpres. A discount of 6d. 1,000 only monthly account.

	King's Cross Station per 1,000 s. d.	To sites in W.C. District. per 1,000 s. d.
Pressed	51 9	58 3
Keyed	53 9	60 3
Single Bullnose	71 9	78 3
Rustics	71 9	78 3
Whites	72 3	78 3

White Midhurst Best selected (delivered London site) £ 5 10 0

Best blue Pressed Staffs. (London Stns.) .. 10 2 0

Do. Bullnose (London Stns.) 10 12 0

Blue Wire Cuts (London Stns.) 8 19 6

Best Stourbridge Fire Brick (London Stns.) :—
2½ in. .....10 0 0 3 in. 12 0 0

GLAZED BRICKS. (London Stns.)

Best White Ivory	D'ble Str'tch'rs ..	36 10 0
and Salt Glazed	D'ble Headers ..	33 10 0
Stretcher. 28 0 0	One sided two ends	37 10 0
Headers 27 10 0	Two sides & one end	39 10 0
Quoins, Bullnose	Splays and	
and 4½ in. Flats 34 10 0	Squints	38 0 0

Second Quality, £2 per 1,000 less than best. Cream and buff, £3 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

PARTITION SLABS.

Delivered London Area.

"PHORPRES" HOLLOW PARTITION BLOCKS.

2" per yd. sup.	2 3	3" per yd. sup.	2 9
2½" " "	2 6	4" " "	3 1

CLINKER CONCRETE.

2" per yd. sup.	1 9	3" per yd. sup.	2 0
2½" "	2 1	4" "	3 4

CRANHAM TERRA COTTA.

Size 12 x 9 x 2" per yd. super	2 6
Size 12 x 9 x 2½ "	2 9
Size 12 x 9 x 3" "	3 3
Size 12 x 9 x 4" "	3 7

Plus 2d. for smooth one side, and 4d. for smooth both sides.

Delivered: Free on site London area.

HEMPSTEAD—KEYED TWO SIDES.

12" x 9" x 2"	2 6	12" x 9" x 3"	3 0
12" x 9" x 2½"	2 9	12" x 9" 4"	3 9

Per yard super d/d. Free on site, London.

SAND.

Thames Ballast	9 6 per yd.	delivered 2 miles radius Paddington.
Pit Ballast	9 0 " "	
Pit Sand	11 6 " "	
Washed Sand	13 0 " "	
¼ in. Shingle	10 0 " "	
¾ in. Broken Brick	15 6 " "	
Pan Breeze	9 6 " "	

CEMENT.

Best British Portland Cement. Standard Specification. delivered London Area.	£ s. d.
4 ton loads and upwards site. ..... Per ton	2 9 6
1 ton to 4 tons site	2 12 6
Alongside Vauxhall in 80 ton lots	2 7 0
"Ferrocrete" Rapid Hardening Cement—	
4 ton loads and upwards site	2 15 6
1 ton to 4 tons site	2 18 6
Alongside Vauxhall in 80 ton lots	2 13 0

Stored in Reserved Bins at works. 1/6 per ton extra.

"Aquacrete" Water Repellent, "Blue Circle" cement, 20/- per ton extra on ordinary "Blue Circle" prices.

"Colorcrete" Nos. 1 and 2. Coloured Rapid Hardening Portland Cement	3 19 6
"Colorcrete" not rapid hardening, according to colour, from £7 to £15 10s. per ton.	
"Snowcrete" White Portland Cement 10 5 0	
"417" Cement (Ultra Rapid Hardening) Delivered site London Area in 4 ton lots and upwards ..... per ton	3 9 6

Plus packages at current prices.

Super Cement (Waterproof), *bags extra*	3 19 6

NOTE.—Paper bags will be charged at the rate of 6/- nett per ton. Jute sacks charged 1s. 9d. nett each and 1/6 nett each allowed if returned to works within two weeks, in good condition.

Carriage will be paid by makers on returned empty jute sacks.

Roman Cement	£8 0	Keene's Cement, White	£7 0 0
Parian Cement	7 0	" " Pink	6 10 0

Cementone Colours for cement according to tints per cwt. from £2 16s. 0d.

PLASTER.

	£ s. d.		£ s. d.
Coarse, Pink	4 0 0	Simplite, Coarse ..	4 5 6
" White ..	4 7 6	" Finish ..	4 13 6
Pioneer	4 5 0		

Above prices for 4-ton loads and over London Area.

Best Ground Blue		Grey Stone Lime	2 14 6
Lias Lime	2 0 6	Chalk Lime.	2 14 6
Granite Chippings	1 15 0	Hair per cwt. ..	2 7 6

NOTE.—Sacks are charged 1s. 9d. each, and credited 1s. 6d., if returned in good condition within three months, carriage paid.

Stourbridge Fireclay in paper bags, £2 12 6 in 6-ton lots at railway depot.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	3 3½
BEER STONE—RANDOM BLOCK— Free on rail at Seaton Station. . per ft. cube	2 9
Delivered free on rail Nine Elms, S.R.	3 1½
Selected approximate size one way, 1d." per cubic ft. extra, selected approximately three sizes or for special work, 3d. per cubic ft. extra.	
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 7
Do. do. delivered on road waggons as above stations, per ft. cube	4 7
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every ft. over 20 ft. *average* and ½d. beyond 30 ft.	
HOPTON-WOOD STONE— F.O.R. Quarries, Wirksworth, Derbyshire, Random blocks from 10 ft. and over F.ft.cb.	13 2
Sawn two sides	26 11
Sawn three or four sides	31 11
YORK STONE, BLUE—Robin Hood Quality. Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 90 ft. super) ..... per ft. super	5 6
6 in. rubbed two sides, ditto .... "	6 3
3 in. sawn two sides slabs (random sizes) ..... "	2 7
2 in. to 2½ in. sawn one side slabs (random sizes) (paving) ..... "	1 8½
1½ in. to 2 in. ditto ..... "	1 4½
HARD YORK— Delivered at any Goods Station, London.	
Scrappled random blocks. ..... per ft. cube	6 10
6 in. sawn two sides landings to sizes (under 40 ft. super) ..... per ft. super	5 7½
6 in. rubbed two sides, ditto .... "	6 9
4 in. sawn two sides slabs (random sizes) ..... "	3 5
3 in. ditto ditto ..... "	2 8
2 in. self-faced random flags .....per yd. super	8 9

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 7s. 6d. Moulded. 8s. 6d.

Small section cills and copings, 11s.

HARD WOOD.

1 INCH AND UP THICK.

Average price for prime quality.	Foot cube. £ s. d.
Dry English Wainscot Billets .. 10 0 to	0 18 0
Dry Slavonian Billet Wainscot 17 0 to	1 0 0
Dry Cuba Mahogany logs .. 21 0 to	1 4 0
Square-edged Honduras Mahogany	0 16 6
Log Cut Honduras Mahogany	0 17 6
American Figured Oak	0 13 0
American Plain Oak	0 12 6
Jap. Figured Oak	0 13 0
Jap. Plain Oak	0 12 6
Teak	0 15 6
American Whitewood	0 12 6
African Whitewood	0 8 0
African Mahogany	0 11 0
Australian Walnut	0 19 0
Australian Silky Oak	0 12 6
Best Scotch glue per cwt.	5 0 0
Liquid glue, per gallon.	1 2 0

Having Secured the Contract— What about the Steel Scaffolding?

TUBULAR

—S & C—

SCAFFOLDING

For the lowest Prices apply to the Oldest Firm in the Scaffolding Trade.

STEPHENS & CARTER LTD.

The British Steel Scaffolding Co.

731-761, HARROW RD., N.W.10.

Telephone No. Ladbroke 1191 (6 lines).

SOFT WOOD.

MERCHANTABLE BRITISH COLUMBIAN PINE.

	Minimum. £ s. d.	Maximum. £ s. d.
Scantlings in imported sizes,		
2 in. by 3 in. to 4 in. by 11 in.	42 10 0	53 0 0

PLANED BOARDS.

PRIME CLEAR BRITISH COLUMBIAN PINE.

	Per standard. £ s. d.
1 in. by 11 in. } 1 in. by 9 in. }	67 10 0

	Per square. s. d.
1 in. plain edge flooring	53 0
1¼ in. ditto	66 6
1 in. tongued and grooved	53 0
1¼ in. ditto	66 6

MATCHING.

	Per square. s. d.
¾ in.	37 6
⅞ in.	42 0
1 in.	45 0

SLATES.

First quality slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	45 5 0	18 by 10	24 0 0
22 by 12	37 17 6	18 by 9	22 12 6
22 by 11	34 2 6	16 by 10	21 10 0
20 by 12	33 0 0	16 by 8	16 12 6
20 by 10	30 5 0		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. ..... Per 1,000 f.o.r. London

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district.	£4 17 6
Ditto hand-made ditto	5 17 6
Ornamental ditto	6 2 6
Hip and valley tiles { Hand-made	0 11 0
(per dozen) { Machine-made	0 11 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON— R.S. Joists, cut and fitted	£23 10 0
Plain Compound Girders	25 0 0
Stanchions	27 10 0
In Roof Work	28 10 0

NOTE.—These prices are for standard pieces and not special pieces of an awkward nature.

MILD STEEL ROUNDS.—To London Stations, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	22 5 0	⅜ in. to ½ in.	20 15 0
⅝ in.	21 5 0	⅝ in. to 2¼ in. ..	20 5 0

WROUGHT TUBES AND FITTINGS.

Deliveries from works.

Deliveries from London stock further 2½% gross.

Fittings. 10/17

Tubes.	½"/⅝" %	¾"/⅞" %	Tubulars. 19/24 %	Flanges. ½"/⅝" %	Flanges. 2½"/6" %
Light weight ..	51½	—	47½	51	57½
Heavy weight	44	44	39½	41	49½
Galv. lightweight	40½	—	38½	39½	48½
Galv. heavyweight	31	31	31	29½	41

Tubes and tubulars sizes ½"/1" inclusive, charged extra of 5% less gross.

Fittings. Figs. 25/34 5% less gross discount.

Terms.—Nett cash end of month following date of invoice. Carriage paid on lots of £10 nett value and over.

C.I. HALF-ROUND GUTTERS.—London Prices ex Works. per yd. in 6 ft. lengths.

	Gutters.	Nozzels.	Stop ends.
3 in.	1/5	1/1½	4½d.
3½ in.	1/6½	1/2½	4½d.
4 in.	1/6½	1/5	6½d.
4½ in.	1/7½	1/7½	8d.
5 in.	1/11	1/9	8½d.

O.G. GUTTERS.

3 in.	1/9½	1/6½	4½d.
3½ in.	2/0½	1/6½	6½d.
4 in.	2/0½	1/7½	7½d.
4½ in.	2/1½	1/10½	8½d.
5 in.	2/7	2/1½	9½d.

RAIN WATER PIPES.

Per yd. in 6 fts.	Pipe.	Bends. Stock angles.	Branches.
2 in.	2/1½	1/5	2/1
2½ in.	2/2½	1/7½	2/5½
3 in.	2/7½	2/0½	3/0½
3½ in.	3/1	2/5	3/6
4 in.	3/7	2/10½	4/2½

NETT PRICES.

Tonnage allowance—4-ton lots, 5 per cent. 2-ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices, ex Stock.

Per yd. in 6 fts.	Pipe	Bends.	Branches.
2 in.	3/6½	2/5½	3/0½
2½ in.	4/2½	2/9	3/9½
3 in.	4/6½	3/0½	4/6
3½ in.	4/7½	3/9½	5/3
4 in.	5/0½	4/2½	6/0½

L.C.C. COATED DRAIN PIPES.

	Pipe.	Bends.	Branches.
3 in. per yd. in 9 fts.	5/5	4/3	9/11
cwt. qr. lbs.			
4 in. 1 1 20.	7/11	7/1	12/0
5 in. 1 2 22.	9/7	12/0	19/3
6 in. 2 0 6	11/5	14/8	25/6

Gaskin, 75/- per cwt.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information. Prices are subject to 2½ per cent. cash discount.

PRICES CURRENT OF MATERIALS—(cont.)

	Per ton basis in London, £ s. d.
IRON.—Staffordshire Crown, Merchant quality	18 7 6
IRON.—Staffordshire Marked Bars	19 7 6
Mild Steel Bars	19 15 0
Mild Steel Hoops	21 10 0
	Ex Merchant's Stock, per ton (two-ton lots).
Soft Steel Sheets, C.R. and C.A.—	
20 gauge	24 17 6
24 gauge	25 2 6
26 gauge	25 17 6
Galvanised Corrugated Sheets, 6 ft. to 9 ft.—	
20 gauge	27 0 0
24 gauge	27 10 0
26 gauge	28 15 0
Galvanised Flat Sheets, C.R. and C.A.—	
20 gauge	28 10 0
24 gauge	29 0 0
26 gauge	30 5 0
	Per ton. £ s. d.
Cut Nails, 3 in. and up	28 10 0

ALL NETT.

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

Seamless copper tubes (basis)	per lb.	1/3
Strong sheet	"	1/6
Thin sheet	"	1/7
Copper nails	"	1/6
" wire	"	1/6

PLUMBERS' BRASS WORK.

Delivered in London.
Stamped by Met. Water Board.

CRUTCH HEAD S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
34/-	52/- per doz.

CHROMIUM PLATED TOILET S.D. BIB COCKS FOR IRON. EASY CLEAN.

½ in.	¾ in.
40/-	66/- per doz.

S.D. STOP COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
27/6	52/-	87/-	202/-	288/-	460/- per doz.

S.D.S. COCKS WITH TWO UNIONS FOR LEAD.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
47/-	75/6	120/-	226/-	360/-	568/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
4/10	9/9	15/9	27/6	44/-	63/6 per doz.

HEAVY CROYDON BALL VALVES. SCREW IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
45/-	72/-	120/-	204/-	282/- per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
10/6	12/9	19/3	34/-	48/-	52/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	2½ in.	3½ in.	4 in.
9/9	12/6	22/6	33/-	42/- per doz.

DRAWN LEAD TRAPS WITH BRASS CLEANING SCREWS.

	1½ in.	1½ in.	2 in.	3 in.
8 lb. Lead P.	29/-	38/-	54/-	93/- per doz.
8 lb. Lead S.	36/-	42/-	67/-	120/- "

SOLDER.—Plumbers, 1/3. Tinmen's, 1/8. Blow pipe, 1/10 per lb.

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in drums per gallon	0 5 4
Boiled Linseed Oil, in drums "	0 5 7
Turpentine, in drums (10 gals.) "	0 6 8
Genuine Ground English White Lead, per ton (in not less than 5-cwt. casks).	62 0 0
Extra for 1-cwt. kegs over 5-cwt. casks is 2/9 cwt.	

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganwyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5-cwt. lots, per ton delivered £ s. d. 86 0 0

Red Lead, Dry (packages extra)	per ton	53 0 0
Best Linseed Oil Putty (1 cwt lots)	per cwt.	0 17 1½
Sine. XD quality	tkn.	0 3 6

Turpentine substitute can be obtained and prices vary according to the quality from 3/- gallon upwards.

		£ s. d.
SNOWCEM CEMENT PAINT	per cwt.	2 16 0
C.M.C. CAMOUFLAGE PAINT	"	2 16 0

VARNISHES, &c.

		Per gallon.
Oak Varnish	Outside	0 16 0
Fine do.	"	0 18 0
Fine Copal	"	1 0 0
Pale Copal	"	1 2 0
Pale Opal Carriage	"	1 6 0
Best do. do.	"	1 14 0
Floor Varnish	Inside	1 0 0
Fine Pale Paper	"	1 0 0
Fine Copal Cabinet	"	1 4 0
Fine Copal Flatting	"	1 8 0
Hard Drying Oak	"	1 0 0
Fine Hard Drying Oak	"	1 1 6
Fine Copal Varnish	"	1 2 6
Pale do.	"	1 14 0
Best do.	"	1 4 6
Best Japan Gold Size		1 14 6
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 14 0
Brunswick Black		0 9 6
Berlin Black		0 16 0
Knotting (patent)		0 17 0
French and Brush Polish		0 14 0
Liquid Dryers in Turpsbne		0 11 0
Cuirass Black Enamel		0 9 6

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.
ORDINARY GLAZING QUALITY (O.Q.) AND SELECTED GLAZING QUALITY (S.Q.).
PER FOOT SUPER.

In sizes not exceeding 80 in. long or 48 in. wide or 110 united inches.

	O.Q.	S.Q.
18 oz. in 300 ft. cases	2½d.	2¾d.
24 oz. " 200 ft. "	3¼d.	4d.
26 oz. " 200 ft. "	3¾d.	4¼d.
32 oz. " 200 ft. "	6¼d.	6¾d.
24 oz. " 300 ft. "	3¼d.	3¾d.
26 oz. " 300 ft. "	3¾d.	4¼d.
32 oz. " 300 ft. "	5¼d.	6¼d.
18 oz. Obscured Sheet		5½d.
24 oz. Obscured Sheet		6¼d.
Fluted, 21 oz.		9d.
Enamelled, 18 oz.		5½d.
" 24 oz.		6¼d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE AND FIGURED CATHEDRAL, ETC., IN CUT SIZES.

Over 500 ft. super of all kinds.	Per ft.
Rolled plate, ¼ in.	5½d.
Rough cast double rolled, ⅜ in.	6¼d.
Rough cast double rolled, ½ in.	6¾d.
Figured rolled, and Cathedral, white.	6¾d.
Figured rolled and Cathedral, tinted	9¼d.
Rolled Sheet	6d.
Reeded, Broad Reeded, Cross Reeded and Chevron Reeded, ¼ in. thick	0 10½

Rolled plate is the same price as rough cast double rolled.

	Per ft. s. d.
Wire Rolled, ¼ in. thick	0 9½
Wired Cast, ¼ in. thick	0 9½
Georgian Wired Cast	0 10
"Calorex" Sheet, 21 oz.	2 6
" " 32 oz.	4 0
" Cast, ¼ in. thick	0 10
" " ⅜ in. thick	1 0
" " ½ in. thick	1 2
Non Actinic Glass, ¼ in. thick	0 9½
" " ⅜ in. thick	1 0
" " ½ in. thick	1 2

"VITA" GLASS.

	Per ft. s. d.
"Vita" Plate Glass, about ⅛ thick	
To 7 ft. super	5 0
Over 7 ft. super	7 6
"Vita" Sheet Glass, about 18/20 oz.	2 0
Cathedral "Vita" Glass:	
¼ in. thickness	2 0
⅜ in. "	3 0
½ in. Georgian Wired "Vita" Glass	3 6

LEAD, &c.

(Delivered in London.)	Per ton. £ s. d.
LEAD.—Sheet, English, 4 lb. and up	34 10 0
Pipe in coils	34 0 0
Soil pipe	39 10 0
Compo pipe	41 5 0

NOTE.—Country delivery, 30/- per ton extra, lots under 3 cwt. 4/- per cwt. extra and over 3 cwt. and under 5 cwt., 2/6 per cwt. extra. Cut to sizes, 4/- per cwt. extra.

Old lead, ex London area, at Mills. per ton £18 0 0.

BUILDING TRADE WAGES IN SCOTLAND

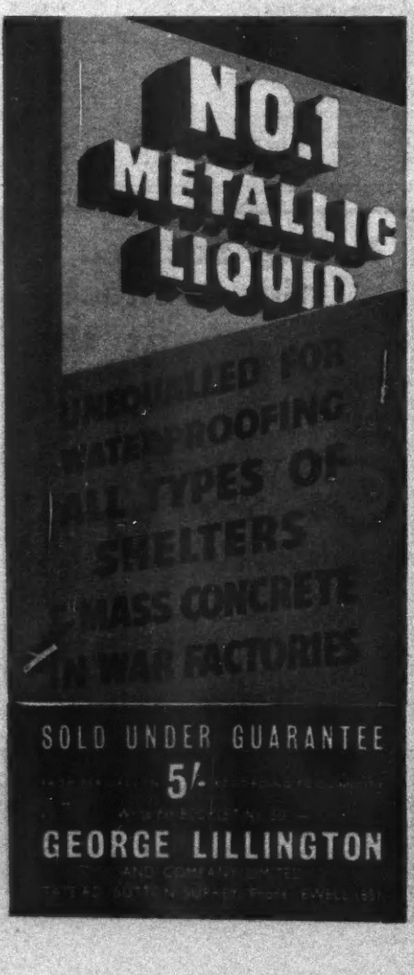
Following are grade rates authorised by the Scottish N.J.C. from June 1. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classification	A	A¹	A²	A³	B	B¹
Craftsmen	1/11	1/10½	1/10	1/9½	1/9	1/8½
Labourers	1/5½	1/5½	1/4½	1/4½	1/4	1/3½

Aberdeen	A	Dumfriesshire	A³	Inverness	*	Perthshire	A¹
Ayrshire	A	Dundee	A	Inverurie	A¹	Peterhead	A¹
Banff	B	Dunoon	A	Kincardineshire	A¹	Renfrewshire	A
Berwickshire	A²	East Fife	A	Kinross-shire	A	Rothesay	A
Bridge of Allan	A	East Lothian	A	Lanarkshire	A	Roxburghshire	A¹
Broughty Ferry	A	Edinburgh	A	Midlothian	A	St. Andrews	A
Clackmannanshire	A	Fifeshire	A	Montfieth	A	Selkirkshire	A²
Doune	A	Forfarshire	A²	Moray and Nairn	B	Stewartry	A²
Dunblane	A	Glasgow	A	Newport	A	Stirlingshire	A
Dumbartonshire	A	Greenock	A	Peeblesshire	A²	Stornoway	A¹
Dumfries	A¹	Hamilton	A	Perth	A	Tayport	A
						West Lothian	A

* This town has its own rates: Masons, 1/8½; Carpenters, 1/8½; Slaters, 1/8½; Plumbers, 1/9; Plasterers, 1/9½ but 1/10 is paid owing to the scarcity at present; Painters, 1/8½ and Labourers, 1/4.

The information given in this table is copyright. Rates of wages in England and Wales are given on page 64



THE SCOTTISH BUILDER

NEW BUILDINGS

GLASGOW.—BUILDINGS.—Plans in hand for electricity station. George Morgan, electricity officer.

GREENOCK.—BUILDINGS.—Macdonald and Partners, 135, Wellington-st., Glasgow, prepared plans for restoration of Municipal Buildings.—J. Walker & Co., Ltd., propose restoration of buildings to plans by Mr. H. Wilson, resident architect.—Greenock Harbour Trust propose canteen. Contractors are Cowieson, Ltd., Glasgow.

MOTHERWELL AND WISHAW.—GARAGE.—The Dean of Guild Court has granted authority to J. Skene, contractors, to erect garage in Stewarton-st., Wishaw, at £1,000.

NEW BUILDINGS IN LONDON

CAMBERWELL. — BUILDING.—The B.C. recommend reconstruction of garages and rebuilding of A.R.P. stores at Grove Vale depot, at £3,085. Boro' Eng. and Sur. to proceed with the work.—Council approve an additional store at Grove-la. nursery, at £300. The Boro' Eng. and Sur. to proceed with work.

WOOLWICH. — BUILDING.—The B.C. has approved the following plans: T. A. Boughton, 134, Sangley-rd., Catford, S.E.6 (on behalf of Messrs. Stanley & Son), addition to existing premises; and Standard Telephones and Cables, Ltd., North Woolwich, electricity substation.

OFFICIAL NOTIFICATON

Steel for Hand Tools.

The Ministry of Supply state that all applications for authorisation for the purchase of steel for hand tools should henceforth be addressed to the Directorate of Hand Tools, The Cedars, Tettenhall, Wolverhampton. The definition of a hand tool for this purpose is "a tool operated by hand not requiring mechanical power to drive it."

CURRENT AND PROPOSED NEW BUILDINGS

Alnwick.—U.D.C. forwarded to Ministry of Food detailed plans and estimates for feeding centre.

Bakewell.—Board of Bakewell and District Cottage Hospital propose extensions.

Barnoldswick.—U.D.C. approved plans for conversion of bank buildings to flats, Skipton-rd.

Barrow-on-Soar.—R.D.C. propose strongroom, at £360, not including foundation work, for which tenders are to be invited. Plans by W. Curtis, Sur.

Batley.—T.C. to rebuild boundary retaining wall at White Lee playing-fields, at £200. Plans by T. Mossop, Boro' Sur.

Belford.—R.D.C. approved plans for hostel for 50 agricultural workers.

Blackburn.—T.C. to provide experimental day nursery at Moss-st. school.

Blyth. — T.C. to provide "British Restaurants."

Bridgnorth.—R.D.C. propose painting work on houses at Cockshutt, Highley. E. Trevor, Sur. Tenders to be invited.

Camberwell.—B.C. approved £845 for buildings for food kitchen.

Cheadle.—R.D.C. propose painting work on 90 council houses—extensions to Weston Coyney sewage works, at £575.

Coventry.—City Architect prepared estimate of cost at approximately £3,000 for repairs to slipper baths.

Deptford.—T.C. to seek grant of £15,000 from M.H. for repairs to houses.

Durham.—County Director of Education prepared report showing alterations to provide meals at secondary schools. As first instalment facilities are to be provided at 16 schools at £4,525. Plans by F. Willey, 34, Old Elvet, Durham County Architect.—Board of Education approved C.C.'s plans for overhauling electrical installations at Bearpark Council school at £184, and Sherburn school at £199.—County E.C. proposes spending £925 on improvements to heating apparatus at Emmaville school, and £1,010 for similar work at Waldridge-lane school. No contracts let.—E.C. to adapt premises in Office Row, Shotton Colliery, as branch library. Plans by County Architect, 34, Old Elvet, Durham.

Durham.—City Council to paint 268 houses. No contracts let.—East Hetton Collieries, Ltd., Coxhoe, propose reconditioning 85 houses.

Felling-on-Tyne.—U.D.C. to provide more communal feeding centres. Plans by H. Fawcett, Sur.

Fleetwood.—T.C. offered 20 per cent. grant by the Ministry of Agriculture towards cost of closing gap in the river embankment under the Marsh reclamation scheme. Estimated cost, £11,000. W. Melville, Boro' Sur.

Halesowen.—T.C. propose conversion of Sunday-schools, Colley-gate, as a "British Restaurant." Plans by G. Spurr, Boro' Sur.

Hebburn-on-Tyne. — U.D.C. to apply to M.H. for loan sanction in connection with scheme for laying 36-in. c.i. pipe in invert of existing outfall sewer. Engineers are Taylor and Wallin, 1, Saville-pl., Newcastle-on-Tyne.

Hemel Hempstead.—T.C. approved: messroom, etc., Hemel Hempstead Engineering Co., Ltd.; alterations for James Cawdell & Co., Ltd.

Houghton-le-Spring.—V. J. Hunter, Sur. to U.D.C., to prepare plans for "British Restaurants" at Fence Houses and Shiney Row.

Leeds.—P. B. Haswell, Education Architect, 1, Calverley-st., prepared plans for new College of Art, Commerce and Technology on Vernon-st., Woodhouse-la., Great George-st. and Cookridge-st. for E.C.—T.C. are to seek sanction to borrow £4,000 for widening Burmantofts-st.

Leeds.—T.C. received sanction from M.H. to borrow £800 and £11,200 for land and works, respectively, in connection with construction of Ring-rd. from Weetwood-la. to Smithy Mills-la.

Leigh. — Guardians Committee propose construction of water tank of 500,000 gals.

Limerick.—Council informed by Department of Local Government that sanction be given to building of 316 houses at Prospect.

Liverpool.—T.C. authorised City Eng. and Sur. to have certain drainage and other work carried out at Wholesale Fruit and Vegetable Market. Tenders to be invited.—Corporation to make improvements at an infirmary.

Manchester.—W. G. Coulson, 29, Westholme-rd., Withington, prepared plans for extensions to works, Levenshulme.—Leech and Ratcliffe, 7, Cheapside, architects for premises, 25, Bridge-st., for D. Lea & Sons, Ltd.—Jones and Dalrymple, 178, Oxford-rd., Chorlton-on-Medlock, architects for offices, etc., for Manchester Commercial Buildings Co., Ltd.

Manchester.—Highways Committee propose relaying sewer, Cannon-st., at £1,840.

Middlesbrough.—T.C. to provide "British Restaurant," North Ormesby. Plans by C. Gorman, Boro' Eng.

Middleton.—T.C. propose relief sewer, Manor-rd., at £1,500.

Newcastle-under-Lyme.—S. A. Wilmot, architect, Estate Office, Bournville Village Trust, prepared plans for lay-out of proposed Parkway between Lower Milehouse-la. and factory site for T.C.—T.C. propose redecoration and repairs to municipal houses at £15 per house.—Council applying to M.H. for prefabricated huts for day nursery for 40 children.—Ministry of Food approved schemes for "British Restaurants" at Silverdale, £1,175, and at Knutton, £1,333.—Ministry of Works and Buildings propose hostel to accommodate 30 agricultural workers at Roe-la. Farm estate.

Oldham.—Housing Committee propose external painting of 111 houses, Hathershaw estate. F. G. Walshaw, Housing Manager, Housing Department.

Rotherham.—T.C. approved plans providing for a works canteen, Rotherham Forge and Rolling Mills Co., Ltd.—garage, Wellgate, Moorhouse & Co. (Rotherham), Ltd.

Salford.—Civil Defence Emergency Committee to borrow £1,317 in connection with establishment of British Restaurant at Ordsall.—Council propose appointing J. Gomersall (L.), of Drury and Gomersall, architects, Manchester, to prepare scheme for replacement of workshops and offices

Salford.—E.C. approved first-aid repairs to All Souls' and St. John's schools, Weaste-la., Weaste, and St. Joseph's schools, for Catholic authorities, at £330.

Salford.—T.C. propose "British Restaurants" at Greengate, Adelphi, Pendleton, and Brindle Heath. Plans by W. A. Walker, City Engineer.

South Shields.—Council to erect emergency kitchen at hospital, at £650. Plans by N. G. Richardson, Boro' Eng.

Spenborough.—U.D.C. approved plans: Additions to works canteen, C. Hirst & Sons, Ltd.—lavatories, T. Burnley & Sons, Ltd.

Stockport.—T.C. propose day nursery, Edgeley.

Stoke-on-Trent.—T.C. propose communal feeding centre, Stoke Market—J. R. Piggott (A.), City Architect, to prepare plans for shopping centre, Chell Heath.

Sunderland.— J. Cummings, builder, Matamba-ter., to extend his premises.—Short Bros are to build canteen.—Wearside Boat Building Co., to build a slipway.—W. Doxford and Sons, Ltd., to construct lavatories.

Sunderland.—T.C. carrying out of urgent work at Corporation Quay, at £2,300.

Swansea.—C.B. approved: additions Page-st. Swansea and District Co-operative Society, Ltd.; soil drainage scheme, Vale of Neath-rd. British Aluminium Co., Ltd.; additions Oxford-st., M. Bernstein; addition "Royal House," Victoria-rd., Waunarlwydd, N. Gravelle.—Plans passed for temporary buildings: lock-up shop Oxford-st., Johnson (Dyers), Ltd., and George Atherton; lock-up shop High-st., Home and Colonial Stores, Ltd.; temporary stores Clifton Hill, J. Treseder; Boro. Architect prepared plans for adaptation of Eaton House at £287.—Ministry of War Transport to carry out road works at £6,000.

Swinton and Pendlebury.—T.C. received sanction of M.H. to proceed with 60 houses, Gate-st. site, 12 Croft and Knowles-sq. district, and 8 Beech Farm estate. Plans by A. Cordwell, Boro' Sur.

Tynemouth.—Tasker and Child, Trinity-bldgs., New Bridge-st., Newcastle-on-Tyne, prepared plans for rebuilding workshops.

Wallsend.—T.C. to erect houses. Plans by J. A. Blench, Boro' Sur.

Wigan.—Board of Management of Infirmary propose orthopaedic dept.

Woolwich.—B.C. approved reconstruction work at premises Murray's-pl., at £220.—Boro' Eng. to erect lean-to garage with corrugated iron roof, at £275.

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TENDERS

The Editor welcomes authentic information for this feature from architects, surveyors or contractors. Items should reach 4, Catherine-street, Aldwych, W.C.2, not later than Tuesday morning.

Tenders for A.R.P. work will be found under "A.R.P. Schemes."

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modification*.
¶ Denotes *accepted by H.M. Government departments*.

Aberdeen.—Erection of substation, for T.C.: Mason, *George Hall, £979; reinforced concrete and cement plaster, *Clark and Chapman, £208; structural steel, *George Bisset & Son, £235; carpentry, joinery and ironmongery, *R. & J. Reid, Ltd., £66; plumber, *Parkinson & Edmund, £80; asphalt, *James Scott & Son (Aberdeen), Ltd., £117; painter and glazier, *Alexander Brannen & Sons, £23; slater, *William Contts & Son, £10. (All of Aberdeen.)

Bangor (Caernarvonshire).—Resetting of three beds of retorts at gasworks, for T.C. Price White, Consulting Eng., "Rockleigh": *Gibbon Bros., Ltd., Dudley.

Belford.—Hostel for agricultural workers. Tasker and Child, architects, Trinity-bldgs., New Bridge-st., Newcastle-on-Tyne: *R. Carse & Son, Amble.

Bingley.—Internal and external painting at Grammar School, for E.C. E.B. Nelson, Education Office: *Balderson & Dickinson, 47, Church-st., Keighley, £75.

Bromsgrove. — Repairs to council school, etc., at Stoke Works, and fencing of Lickey school, for Worcestershire E.C.: *William Weaver, Ltd., The Strand, Bromsgrove.

Clitheroe.—Extensions to sub-station, for T.C. F. Margerison, A.M.Inst.C.E. Boro' Eng.:—Start & Garvey, Ltd., Accrington-road, Walley, £1,277; J. Bleasard & Sons, Railway-view, Clitheroe, £1,090; Edmondson Bros., Kendal-st., Clitheroe, £1,060. (Accepted tender not stated.)

Dewsbury.—Installation of electrical equipment at substations, for T.C. M. H. Forward, Boro' Architect: *Standard Telephones and Cables, Ltd., Standard House, City-sq., Leeds 1, £3,072.

Fife.—The County Council (J. B. Balfour, Housing Supervisor, County Offices, Wemyss-field, Kirkcaldy) have accepted the following tenders for external house painting:—

Aberdour 1st Dev: D. McOuan, Dunfermline, £58. Dunshalt 1st Dev; James Ross, Falkland, £8. Kelty 3rd Dev: Neil Nicholson, Kirkcaldy, £77. Kennoway 1st and 2nd Devs: Neil Nicholson, Kirkcaldy, £103.

Milton of Balgonie 1st and 2nd Devs: Neil Nicholson, Kirkcaldy, £124.

Newton of Falkland 1st Dev: James Ross, Falkland, £9.

Strathmiglo 1st and 2nd Devs : James Ross, Falkland, £60.

Windygates 1st Dev : Neil Nicholson, Kirkcaldy, £179.

Polsehill.—Reinstatement of heating and hot-water plant at public baths, for Coventry T.C. D. E. E. Gibson, A.R.I.B.A., City Architect : *Saunders & Taylor, Ltd., Trafford Park, Manchester. (Estimated cost, £950.)

Hebburn.—Painting, etc., at public buildings, for U.D.C. A. D. W. Dibble, Acting Sur. : *Alex. Craig, Station-rd., Hebburn, £774.

Hebburn-on-Tyne.—Community kitchen at Methodist Church, for U.D.C. : *J. M. Black (Jun.), Ltd., Glen-st., Hebburn-on-Tyne, £499.

Larne.—Gas cleansing station, for T.C. Jas. A. Caskey, Town Sur., Victoria-st.; Nath. McDowell, The Crescent, Inver, Larne, £1,180; *Archd. Duffin, Barnhill, Larne, £1,140.

Lichfield.—Exterior painting of 20 houses in Stychbrook-gdns., for City Council : *Direct Labour.

London (Air Ministry).— Contracts placed to the value of £500 or over for the week ended July 5 :—

Heating work—J. G. Proger & Sons, Ltd., Cardiff; Brightside Foundry and Engineering Co., Ltd., Tamworth.

General maintenance work—J. F. Booth & Sons, Banbury; C. Hutton & Co., Ltd., Woburn Sands; Geo. Kenny & Sons, Ltd., Ipswich.

Steelwork—Herbert Morris, Ltd., Loughborough.

Civil engineering work—Thos. Lowe & Son, Ltd., London.

Building work—Stewart and Partners, Ltd., Belfast; Staverton Builders, Ltd., Totnes; Jonathan Partington, Ltd., Manchester; G. Wimpey & Co., Ltd., Denham.

Civil engineering work—Dowsett Engineering Construction, Ltd., Malvern; L. J. Speight and Partners, Ltd., Newbury, Berks.

London (War Office).—The following works contracts have been placed by War Department for week ended July 5 :—

Buteshire—Miscellaneous work, Duncan M. Jenkins, 15, Bridge-st., Rothesay, Bute.

Lanarkshire — Building work, Thomas Stewart, Ltd., 24, Lochleven-rd., Glasgow, S.2.

Yorkshire—Concrete work, Jordans, Tranby Croft, Tranby-la., Anlaby, Hull.

Lancashire—Building work, Thos. Croft & Sons, Ltd., Blackpool-rd., Preston.

Derbyshire—Building work, B. Whitehouse & Sons, Ltd., 106, Monument-rd., Edgbaston, Birmingham, 16.

Staffordshire—Building work, G. & J. Seddon, Ltd., 5 and 7, Manchester-rd. West, Little Hulton, Nr. Bolton, Lancs.

Leicestershire—Miscellaneous work, W. Freer, Ltd., Wellington-st., Leicester.

Wiltshire—Miscellaneous work, W. F. Bees, Ltd., Hinton-bldgs., Bournemouth.

Kent—Hutting (erection), F. G. Love & Son, Rookery-drive, Old Hill, Chislehurst, Kent.

Hampshire—Hutting (erection) (2 contracts), Johnson & Sons (Liphook), Ltd., Longmoor-rd., Liphook, Hants; concrete work, Christiani & Nielsen, Ltd., 72 and 74, Victoria-st., S.W.1; and miscellaneous work, A. Hardy & Co., Ltd., Kingsway-av., Woking, Surrey.

Isle of Wight—Miscellaneous work, Vectis Stone Co., St. George's Down, Newport, I.O.W.

Co. Antrim—Miscellaneous work, McMullan Bros., 69a, Aigburth Park, Strandtown, Belfast.

Co. Down—Concrete work, James Moreland, 39, Powerscourt-st., Belfast.

Maghull.—Adaptation of premises Dover-rd., for junior and infants' school, for Lancashire E.C. County Architect, County Offices, Preston : *E. H. Bampton, Ltd., Aughton Park, Ormskirk, £515.

Manchester.—Fire escape to works at Bradford, Manchester : *James Bennett & Sons, Ltd., 16, Deansgate, Manchester.

Manchester.—Additions to works : *John Dickinson and Co. (Bolton), Ltd., Fairclough-st., Bolton.

Newcastle-on-Tyne.—Works for City Council. Painting schools :—

Canning-st. and South Benwell schools : *J. Forster & Sons, £422; Chillingham-rd. and St. Dominic's R.C. schools : *H. J. Sinclair, £317; Sandyford-rd. school : *A. Robertson & Son, £150; St. Lawrence's R.C. school : *M. Alexander & Son, £110; Walker R.C. school : *J. Nicholson, £397; Barrasford Sanatorium : *R. J. Richardson, Ltd., £604; electrical installation at Rutherford technical college : *Falconar Cross & Co., Ltd., £171. (All of Newcastle-upon-Tyne.)

Newcastle-under-Lyme.—Reconstruction of drill-hall, Silverdale, as "British Restaurant," for T.C. A. Cotton, Boro' Sur. : *Phillips Bros. (Silverdale), Ltd., May-st., Silverdale, Newcastle-under-Lyme, £1,210.

Ramsbottom.—Surface dressing of about 84,000 sq. yds. of roadway for U.D.C. A. Plunkett, Eng. and Sur. *S. Sutcliffe and Sons, Ltd., Mytholmroyd.

Rochdale.—Works for T.C. : (a) shelter; (b) ventilating plant in basement of town hall : (a) *James Berry, Ltd., Chapel-st., Heywood; (b) *Sutcliffe, Speakman & Co., Ltd., Engineering Works, Leigh.

Sheffield.—Extension to works canteen at Attercliffe Common : *W. Dunk & Sons, Ltd., Barnsley.

South Westmorland.—Cutting 900 lin. yds. of trenches for water main at Lupton, and reinstatement; also for constructing small brick building and other incidental work, for R.D.C. W. E. R. Thomas, Water Eng., 30, Lowther-st., Kendal : *Direct Labour.

Sunderland.—Reconstruction of warehouse, for Sunderland Equitable Industrial Society. Plans by C.W.S. Architects' Dept., 90, Westmorland-rd., Newcastle-on-Tyne : *C.W.S. Building Dept., West Blandford-st., Newcastle-on-Tyne.

Westmorland. — Laundry improvements, Kirkby Stephen Institution, for C.C. H. B. Greenwood, Clerk, County Hall, Kendal : Building, *Thompson & Jackson, Ltd., Moor-la., Lancaster, £251; machinery, *Isaac Braithwaite (Engineers), Ltd., Ibis Works, Kendal, £430.

Woolwich.—Extensions at berth at a generating station, for B.C. : *H. Covington & Sons, Ltd. (Estimated cost, £500.)

English Joinery Manufacturers' Association.

We are informed that under Section 18 of the Companies Act, 1929, the English Joinery Manufacturers' Association has now been registered as a company with limited liability, and will henceforth be known as the English Joinery Manufacturers' Association (Incorporated). The registered offices remain at the Goring Hotel, Grosvenor Gardens, S.W.1.

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